



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

Multi-axis modular systems

Key features









Concept

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

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

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

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

| Selection matrix | | |
|--|--|--|
| Pick & Place | Linear gantries | Three-dimensional gantries |
| Pneumatic | | Pneumatic/electrical |
|  <p>→4</p> |  <p>→24</p> |  <p>→40</p> |
| Pneumatic with end-position controller SPC11 (Soft Stop) | | |
| |  <p>→24</p> | |
| Electrical with spindle or toothed belt axis | | |
| |  <p>→24</p> |  <p>→40</p> |

Multi-axis modular systems

Key features

Pick & Place



Linear gantries



Three-dimensional gantries

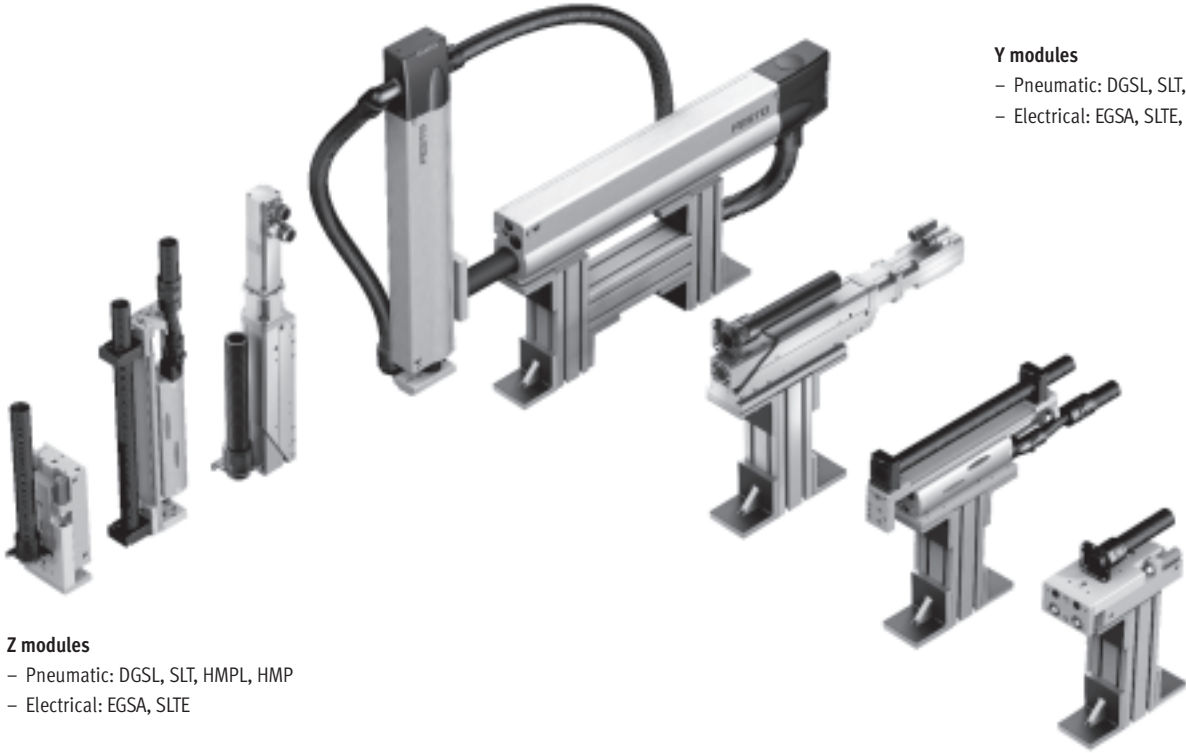


Pick & Place

Key features

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Y and Z modules



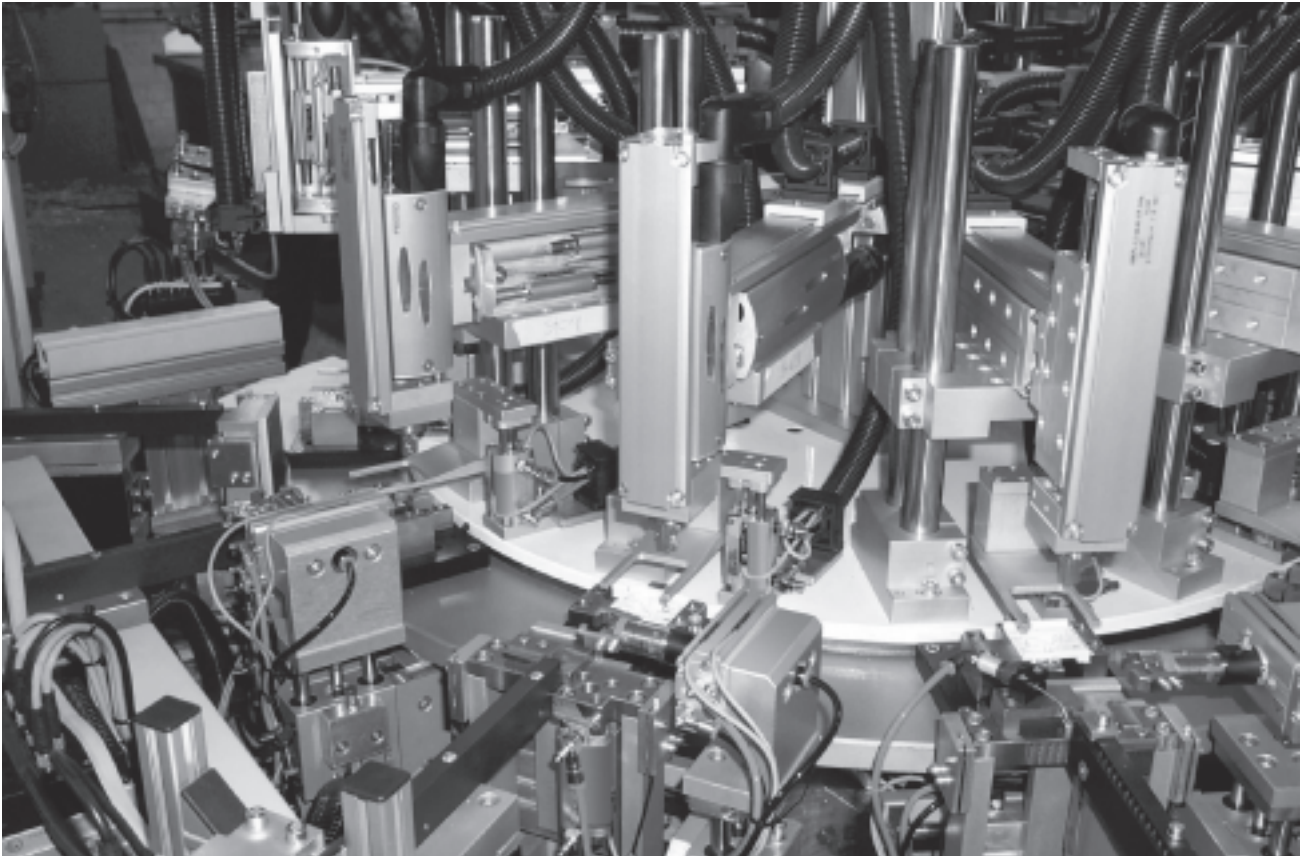
Y modules

- Pneumatic: DGSL, SLT, HMPL, HMP
- Electrical: EGSA, SLTE, HME,

Z modules

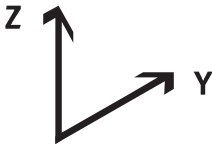







- Pneumatic: DGSL, SLT, HMPL, HMP
- Electrical: EGSA, SLTE

Application



Pick & Place

Product range overview

| Selection aid | | | | | | | |
|---|---|---|---|---|--|---|---|
| Function | DGSL/DGSL | SLT(E)/SLT(E) | HMPL/HMPL | EGSA/EGSA | HM.../DGSL, SLT(E) | HM.../HMPL | HM.../HMP |
|  |  |  |  |  |  |  |  |
| Y-axis | DGSL | SLT(E) | HMPL | EGSA | HMP, HME | HMP, HME | HMP, HME |
| Drive type | Pneumatic/electrical | | | | | | |
| Options | Shock absorber, adjustable/non-adjustable cushioning | Shock absorber, adjustable/non-adjustable cushioning | Intermediate position, clamping unit | Parallel kit for motor attachment | Intermediate position module | | |
| Z-axis | DGSL | SLT(E) | HMPL | EGSA/DGSL | DGSL, SLT(E) | HMPL | HMP |
| Drive type | Pneumatic/electrical | | | | | | |
| Options | Shock absorber, adjustable/non-adjustable cushioning | Shock absorber, adjustable/non-adjustable cushioning | Intermediate position, clamping unit | Parallel kit for motor attachment | Shock absorber, adjustable/non-adjustable cushioning | Intermediate position, clamping unit | |
| Effective load [kg] | | | | | | | |
| 1 | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 2 | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 3 | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 4 | ■ | - | - | - | ■ | ■ | ■ |
| 6 | - | - | - | - | ■ | ■ | ■ |
| 10 | - | - | - | - | - | - | ■ |
| → Page/Internet | 6 | | | | | | |





Pick & Place

Selection aid for basic, connection and installation components

| Y-axis | | | | | |
|------------------|-------------|----------------------|---------------------|--------------------------------------|----------------------|
| Function | DGSL/DGSL | SLT/SLT | HMPL/HMPL | EGSA/EGSA, DGSL | |
| | | | | | |
| Pneumatic drives | Stroke [mm] | Type | | | |
| DGSL-12 | 30 ... 150 | HMBSY-DGSL-1 → 10 | - | - | - |
| DGSL-16 | 30 ... 150 | HMBSY-DGSL-1 → 10 | - | - | - |
| DGSL-20 | 30 ... 100 | HMBSY-DGSL-2 → 10 | - | - | - |
| | 125 ... 200 | HMBSY-DGSL-3 → 10 | - | - | - |
| DGSL-25 | 30 ... 100 | HMBSY-DGSL-4 → 10 | - | - | - |
| | 125 ... 200 | HMBSY-DGSL-5 → 10 | - | - | - |
| SLT-16 | 30 ... 150 | - | HMBSY-SLT-1 → 11 | - | - |
| SLT-20 | 30 ... 100 | - | HMBSY-SLT-2 → 11 | - | - |
| | 125 ... 200 | - | HMBSY-SLT-3 → 11 | - | - |
| SLT-25 | 30 ... 100 | - | HMBSY-SLT-4 → 11 | - | - |
| | 125 ... 200 | - | HMBSY-SLT-5 → 11 | - | - |
| HMPL-16 | 50 ... 160 | - | - | HMBSY-HMPL-1 HMBSY-HMPL-2 → 12 | - |
| HMPL-20 | 50 ... 200 | - | - | HMBSY-HMPL-3 HMBSY-HMPL-4 → 12 | - |
| Electric drives | Stroke [mm] | Type | | | |
| EGSA-50 | 100 | - | - | - | HMBSY-EGSA-1 → 13 |
| EGSA-60 | 100 ... 300 | - | - | - | HMBSY-EGSA-1 → 13 |

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 | Type | | | |
| Stroke [mm] | | | | |
| HMP-16 | 150 ... 250 | HMBSY-HMP-1 → 14 | HMBSY-HMP-1 → 14 | – |
| | 320 | HMBSY-HMP-2 → 14 | HMBSY-HMP-2 → 14 | – |
| HMP-20 | 100 ... 250 | HMBSY-HMP-3 → 14 | HMBSY-HMP-3 → 14 | HMBSY-HMP-3 → 14 |
| | 320 ... 400 | HMBSY-HMP-4 → 14 | HMBSY-HMP-4 → 14 | HMBSY-HMP-4 → 14 |
| HMP-25 | 100 ... 200 | HMBSY-HMP-5 → 15 | – | HMBSY-HMP-5 → 15 |
| | 250 ... 400 | HMBSY-HMP-6 → 15 | – | HMBSY-HMP-6 → 15 |
| HMP-32 | 100 ... 200 | – | – | HMBSY-HMP-7 → 15 |
| | 250 ... 400 | – | – | HMBSY-HMP-8 → 15 |

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
→ 14
Z-axis: HMBSZ-HMPL-3 or 4
→ 22







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

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

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





Pick & Place

Selection aid for basic, connection and installation components

| Z-axis | | | | | |
|---|---|---|---|---|---|
| Function | DGSL/DGSL | SLT/SLT | HMPL/HMPL | EGSA/DGSL, EGSA | HMP, HME/DGSL |
|  |  |  |  |  |  |
| Pneumatic drives | Type | | | | |
| DGSL-10 | HMBSZ-DGSL-1 → 16 | - | - | HMBSZ-DGSL-10 → 18 | - |
| DGSL-12 | HMBSZ-DGSL-9 → | - | - | HMBSZ-DGSL-11/-12 → 18 | - |
| DGSL-16 | HMBSZ-DGSL-2 → 16 | - | - | HMBSZ-DGSL-12 → 18 | HMBSZ-DGSL-4 → 17 |
| DGSL-20 | HMBSZ-DGSL-3 → 16 | - | - | - | HMBSZ-DGSL-5 → 17 |
| DGSL-25 | - | - | - | - | HMBSZ-DGSL-6 → 17 |
| SLT-10 | - | HMBSZ-SLT-1 → 19 | - | - | - |
| SLT-16 | - | HMBSZ-SLT-2 → 19 | - | - | - |
| SLT-20 | - | HMBSZ-SLT-3 → 19 | - | - | - |
| SLT-25 | - | - | - | - | - |
| HMPL-12 | - | - | HMBSZ-HMPL-1 HMBSZ-HMPL-2 → 22 | - | - |
| HMPL-16 | - | - | | - | - |
| HMPL-20 | - | - | | - | - |
| HMP-16 | - | - | - | - | - |
| HMP-20 | - | - | - | - | - |
| HMP-25 | - | - | - | - | - |
| Electric drives | Type | | | | |
| EGSA-50 | - | - | - | HABSZ-EGSA-1 → 21 | - |

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 → 20 | – | – |
| SLT-20 | HMBSZ-SLT-5 → 20 | – | – |
| SLT-25 | HMBSZ-SLT-6 → 20 | – | – |
| HMPL-16 | – | HMBSZ-HMPL-3 HMBSZ-HMPL-4 → 22 | – |
| HMPL-20 | – | – | – |
| HMP-16 | – | – | HMBSZ-HMP-1 → 23 |
| HMP-20 | – | – | HMBSZ-HMP-2 → 23 |
| HMP-25 | – | – | HMBSZ-HMP-3 → 23 |

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
→ 14
Z-axis: HMBSZ-HMPL-3 or 4
→ 22

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

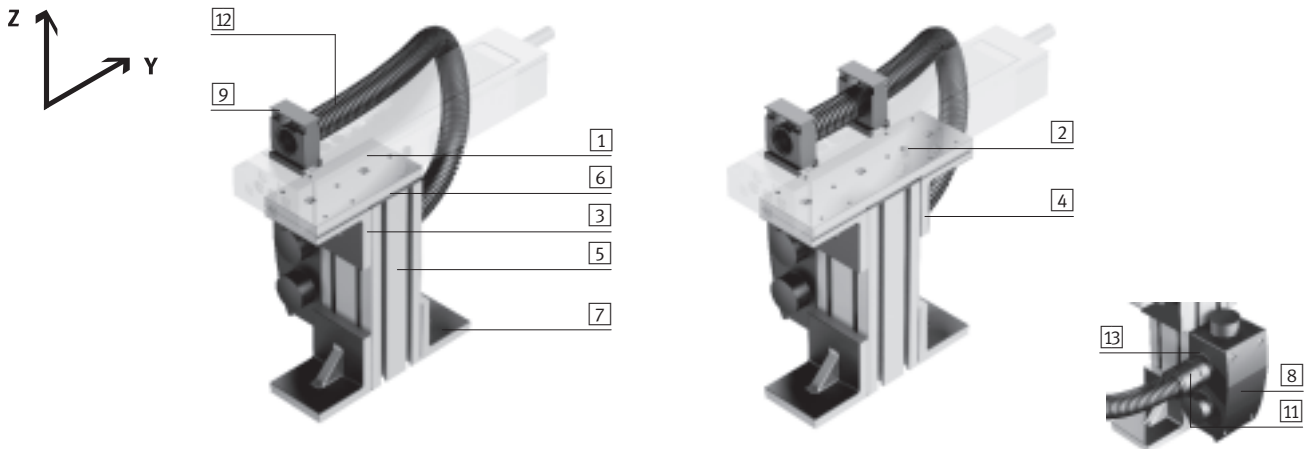
Step 3
Technical data on the basic, connection and installation components can be found on the specified pages.
Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are documented with the drives.

Pick & Place

Y modules

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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-12/-16 | DGSL-20 | | DGSL-25 | | | | | |
| Stroke [mm] | | 30 ... 150 | 30 ... 100 | 125 ... 200 | 30 ... 100 | 125 ... 200 | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet |
| 1 | 1 | 539 968 HMOVY-1 | | 539 969 HMOVY-2 | | | | 539 969 HMOVY-2 | | 76 |
| 2 | 1 | | | | | 539 970 HMOVY-3 | | | 539 970 HMOVY-3 | |
| 3 | 1 | 175 967 HMBV-ND | | 175 967 HMBV-ND | | | | 175 967 HMBV-ND | | 61 |
| 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 | 58 |
| 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 | 58 |
| 7 | 2 | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 175 951 HMBF-DB | 175 951 HMBF-DB | 60 |
| 8 | 1 | 175 126 HMZV | | 175 126 HMZV | | 175 126 HMZV | | 175 126 HMZV | 175 126 HMZV | 95 |
| 9 | 1 | 192 289 MKRS-16,5-B | | 192 290 MKRS-23-B | | 192 290 MKRS-23-B | | 192 290 MKRS-23-B | 192 290 MKRS-23-B | 101 |
| | | 548 803 ZBV-M5-7 | | 548 804 ZBV-M6-9 | | 548 804 ZBV-M6-9 | | 548 804 ZBV-M6-9 | 548 804 ZBV-M6-9 | 67 |
| | | | | | | | | | | |
| 11 | 1 | 177 571 MKRV-16,5-PG-16 | | 177 572 MKRV-23-PG-21 | | 177 572 MKRV-23-PG-21 | | 177 572 MKRV-23-PG-21 | 177 572 MKRV-23-PG-21 | 96 |
| 12 | 1 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 | 94 |
| 13 | 1 | 193 949 MKA-PG-29-PG-16-KU | | 177 595 MKA-PG-29-PG-21 | | 177 595 MKA-PG-29-PG-21 | | 177 595 MKA-PG-29-PG-21 | 177 595 MKA-PG-29-PG-21 | 99 |

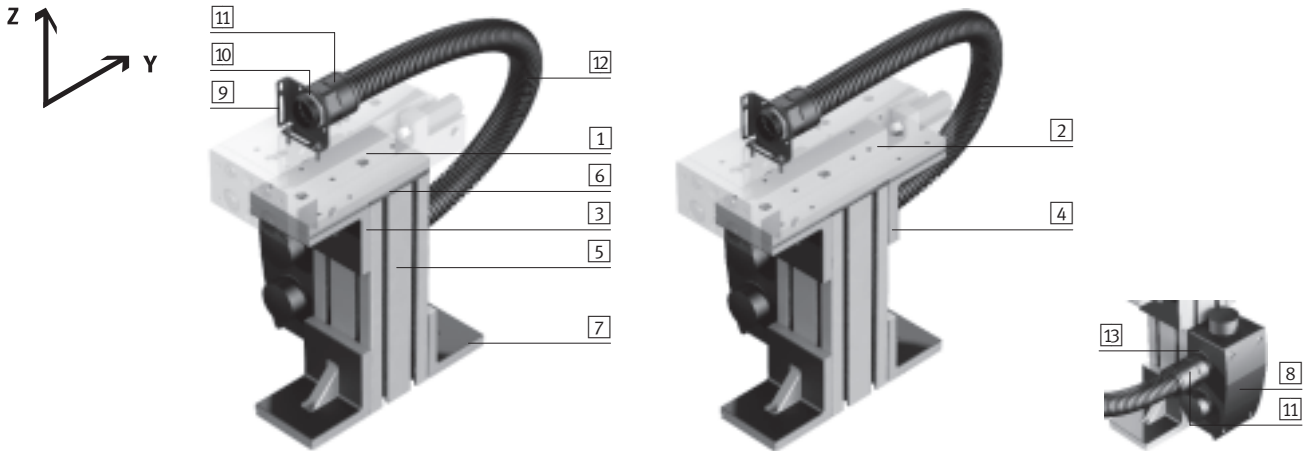
1) Height max. 500 mm

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 | | |
| For drives | | SLT-16 | | SLT-20 | | | | SLT-25 | | | | |
| Stroke [mm] | | 30 ... 150 | | 30 ... 100 | | 125 ... 200 | | 30 ... 100 | | 125 ... 200 | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet |
| 1 | 1 | 539 968 | HMVY-1 | 539 969 | HMVY-2 | - | | 539 969 | HMVY-2 | - | | 76 |
| 2 | 1 | - | | - | | 539 970 | HMVY-3 | - | | 539 970 | HMVY-3 | |
| 3 | 1 | 175 967 | HMBV-ND | 175 967 | HMBV-ND | - | | 175 967 | HMBV-ND | - | | 61 |
| 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 | 58 |
| 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 | 58 |
| 7 | 2 | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 60 |
| 8 | 1 | 175 126 | HMZV | 175 126 | HMZV | 175 126 | HMZV | 175 126 | HMZV | 175 126 | HMZV | 95 |
| 9 | 1 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 102 |
| 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 | 101 |
| 11 | 2 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 96 |
| 12 | 1 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 | 94 |
| 13 | 1 | 177 595 | MKA-PG-29-PG-21 | 177 595 | MKA-PG-29-PG-21 | 177 595 | MKA-PG-29-PG-21 | 177 595 | MKA-PG-29-PG-21 | 177 595 | MKA-PG-29-PG-21 | 99 |

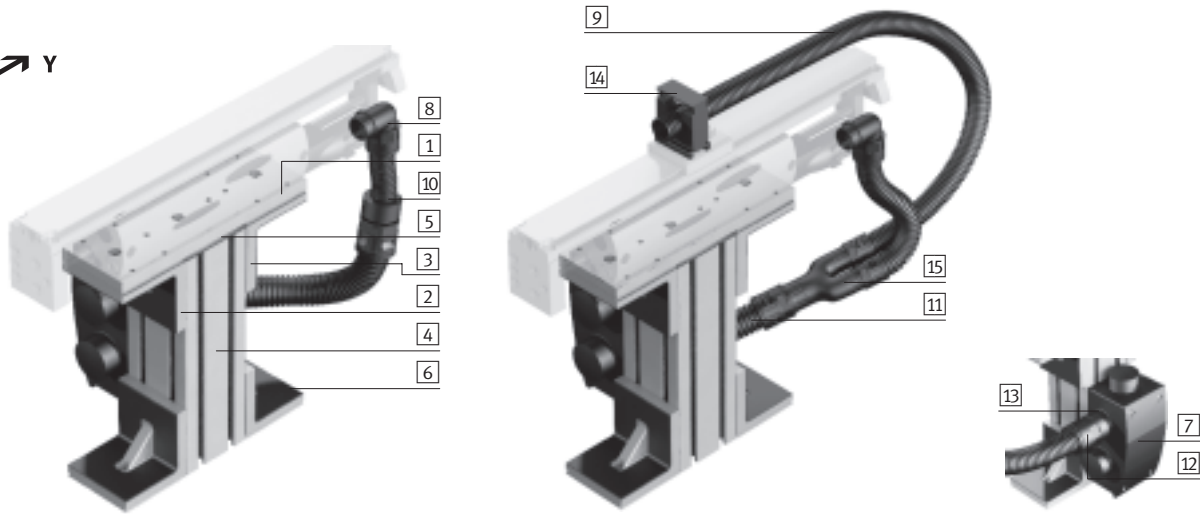
1) Height max. 500 mm
 2) Length depends on the stroke of the drive

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/Internet |
| For drives | | HMPL-16 | | HMPL-20 | | HMPL-20 | | HMPL-20 | | |
| | | without intermediate position | | with intermediate position | | without intermediate position | | with intermediate position | | |
| Position | 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 | 76 |
| 2 | 1 | 175 967 | HMBV-ND | 175 967 | HMBV-ND | - | - | - | - | 61 |
| 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 | 58 |
| 5 | 1 | 175 965 | HMBSA-80/80 | 175 965 | HMBSA-80/80 | 175 965 | HMBSA-80/80 | 175 965 | HMBSA-80/80 | 58 |
| 6 | 2 | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 60 |
| 7 | 1 | 175 126 | HMZV | 175 126 | HMZV | 175 126 | HMZV | 175 126 | HMZV | 95 |
| 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 | 96 |
| 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 | 94 |
| 10 | 1 | 194 321 | MKRT-23-16,5 | - | - | 194 321 | MKRT-23-16,5 | - | - | 98 |
| 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 | 94 |
| 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 | 96 |
| 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 | 99 |
| 14 | 1 ³⁾ | - | - | 192 289 | MKRS-16,5-B | - | - | 192 289 | MKRS-16,5-B | 101 |
| 15 | 1 | - | - | 193 946 | MKY-PG-21-2PG-16 | - | - | 193 946 | MKY-PG-21-2PG-16 | 98 |

1) Height max. 500 mm

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

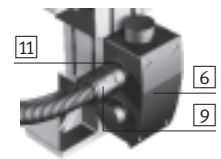
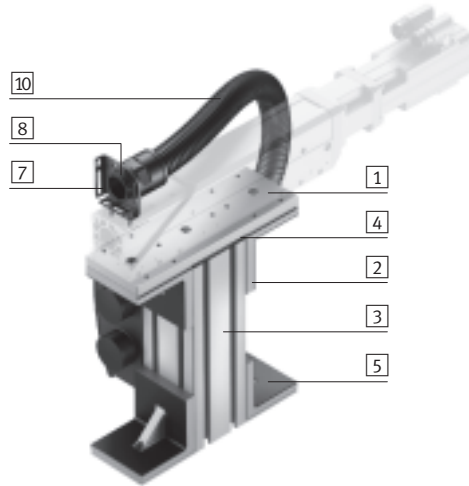
3) In order to be able to mount the retaining clip MKRS, a clamping component (1x code J) must be selected as an accessory in the order for the linear module HMPL

Pick & Place

Y modules

FESTO

Cantilever axes EGSA



| Bill of materials | | | | | | |
|-------------------|-----------------|----------------------------|------|----------------------------|------|-----------------|
| Type | | HMBSY-EGSA-1 | | HMBSY-EGSA-1 | | → Page/Internet |
| For drives | | EGSA-50 | | EGSA-60 | | |
| Stroke [mm] | | 100 | | 100 ... 300 | | |
| Position | Quantity | Part No. | Type | Part No. | Type | |
| 1 | 1 | 560 020 HMVY-4 | | 560 020 HMVY-4 | | 76 |
| 2 | 2 | 175 967 HMBV-ND | | 175 967 HMBV-ND | | 61 |
| 3 | 1 ¹⁾ | 175 958 HMBS-80/80 | | 175 958 HMBS-80/80 | | 58 |
| 4 | 1 | 175 965 HMBSA-80/80 | | 175 965 HMBSA-80/80 | | 58 |
| 5 | 2 | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 60 |
| 6 | 1 | 175 126 HMZV | | 175 126 HMZV | | 95 |
| 7 | 1 | 193 124 HMZAS-PG-21 | | 193 124 HMZAS-PG-21 | | 102 |
| 8 | 1 | 177 599 MKM-PG-21 | | 177 599 MKM-PG-21 | | 101 |
| 9 | 2 | 177 572 MKRV-23-PG-21 | | 177 572 MKRV-23-PG-21 | | 96 |
| 10 | 1 ²⁾ | 177 567 MKR-23-PG-21 | | 177 567 MKR-23-PG-21 | | 94 |
| 11 | 1 | 177 595 MKA-PG-29-PG-21 | | 177 595 MKA-PG-29-PG-21 | | 99 |

1) Height max. 500 mm

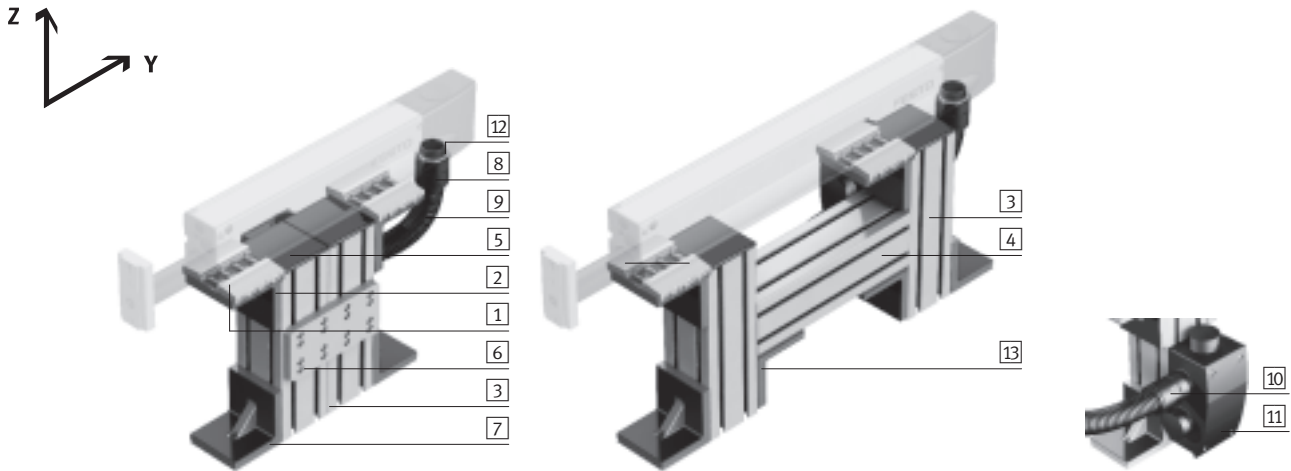
2) Length depends on the stroke of the drive

Pick & Place

Y modules

FESTO

Linear modules HMP, HME



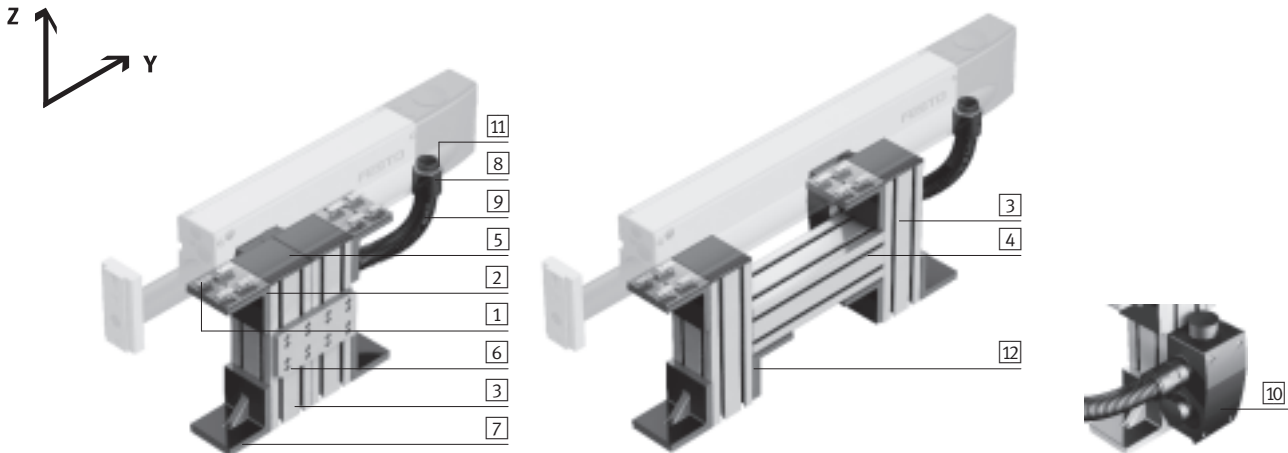
| Bill of materials | | | | | | | | |
|-------------------|-------------------|----------|-----------------|----------|-----------------|----------|-----------------------|-----------------|
| Type | HMBSY-HMP-1 | | HMBSY-HMP-2 | | HMBSY-HMP-3 | | HMBSY-HMP-4 | → Page/Internet |
| For drives | HMP-/HME-16 | | | | HMP-20 | | | |
| Stroke [mm] | 150 ... 250 | | 320 | | 100 ... 250 | | 320 ... 400 | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 2 | 175 975 | HMBK-WS | 175 975 | HMBK-WS | 175 975 | HMBK-WS | 75 |
| 2 | 2 | 175 967 | HMBV-ND | 175 967 | HMBV-ND | 175 967 | HMBV-ND | 61 |
| 3 | 2 ¹⁾ | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 58 |
| 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 | 58 |
| 6 | 1 | 175 972 | HMBSV | - | | 175 972 | HMBSV | 59 |
| 7 | 2 | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 60 |
| 8 | 2 ⁴⁾ | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 177 573 | MKRV-29-PG-29 | 96 |
| 9 | 1 ³⁾⁴⁾ | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | 177 568 | MKR-29-PG-29 | 94 |
| 10 | 1 ⁴⁾ | 177 595 | MKA-PG-29-PG-21 | 177 595 | MKA-PG-29-PG-21 | - | - | 99 |
| 11 | 1 ⁴⁾ | 175 126 | HMZV | 175 126 | HMZV | 175 126 | HMZV | 95 |
| 12 | 1 ⁴⁾ | 177 599 | MKM-PG-21 | 177 599 | MKM-PG-21 | 177 600 | MKM-PG-29 | 101 |
| 13 | 2 | - | | 178 228 | HMBSW | - | 178 228 HMBSW | 59 |

- 1) Height max. 500 mm
- 2) Length 250 mm
- 3) Length depends on the stroke of the drive
- 4) Not possible 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/Internet |
| For drives | | HMP-/HME-25 | | | | HMP-32 | | | | |
| Stroke [mm] | | 100 ... 200 | | 250 ... 400 | | 100 ... 200 | | 250 ... 400 | | |
| Position | 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 | 74 |
| 2 | 2 | 175 967 | HMBV-ND | 175 967 | HMBV-ND | 175 967 | HMBV-ND | 175 967 | HMBV-ND | 61 |
| 3 | 2 ¹⁾ | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 175 958 | HMBS-80/80 | 58 |
| 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 | 58 |
| 6 | 1 | 175 972 | HMBSV | - | | 175 972 | HMBSV | - | | 59 |
| 7 | 2 | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 175 951 | HMBF-DB | 60 |
| 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 | 96 |
| 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 | 94 |
| 10 | 1 ⁴⁾ | 175 126 | HMZV | 175 126 | HMZV | 175 126 | HMZV | 175 126 | HMZV | 95 |
| 11 | 1 ⁴⁾ | 177 600 | MKM-PG-29 | 177 600 | MKM-PG-29 | 177 600 | MKM-PG-29 | 177 600 | MKM-PG-29 | 101 |
| 12 | 2 | - | | 178 228 | HMBSW | - | | 178 228 | HMBSW | 59 |

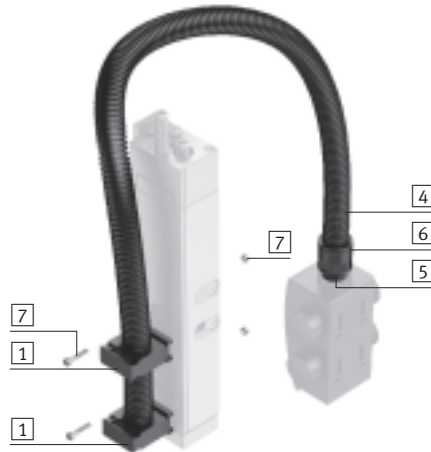
- 1) Height max. 500 mm
- 2) Length 350 mm
- 3) Length depends on the stroke of the drive
- 4) Not possible with linear module HME

Pick & Place

Z modules

FESTO

Mini slides DGSL



| Bill of materials | | | | | | | | | | |
|-------------------|-----------------|---------------|--------------------|---------------|---------------------|----------|--------------------|-----------------|---------------------|-----|
| Type | | HMBSZ-DGSL-1 | HMBSZ-DGSL-9 | HMBSZ-DGSL-2 | HMBSZ-DGSL-3 | | | | | |
| For drives | | DGSL-10 | DGSL-12 | DGSL-16 | DGSL-20 | | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet | | |
| 1 | 2 | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 102 |
| | | M4x12 DIN 912 | | 548 803 | ZBV-M5-7 | 548 803 | ZBV-M5-7 | 548 804 | ZBV-M6-9 | 67 |
| 4 | 1 ¹⁾ | 177 566 | MKR-16,5-PG-16 | 177 566 | MKR-16,5-PG-16 | 177 566 | MKR-16,5-PG-16 | 177 567 | MKR-23-PG-21 | 94 |
| 5 | 1 | 193 949 | MKA-PG-29-PG-16-KU | 193 949 | MKA-PG-29-PG-16-KU | 193 949 | MKA-PG-29-PG-16-KU | 177 595 | MKA-PG-29-PG-21 | 99 |
| 6 | 1 | 177 571 | MKRV-16,5-PG-16 | 177 571 | MKRV-16,5-PG-16 | 177 571 | MKRV-16,5-PG-16 | 177 572 | MKRV-23-PG-21 | 96 |
| 7 | 1 | 548 803 | ZBV-M5-7 | – | | 548 804 | ZBV-M6-9 | – | | 67 |
| | | – | | 186 717 | ZBH-7 ²⁾ | – | | 150 927 | ZBH-9 ²⁾ | 66 |
| 7 | 2 | – | | M5x14 DIN 912 | | – | | M6x20 DIN 912 | | – |

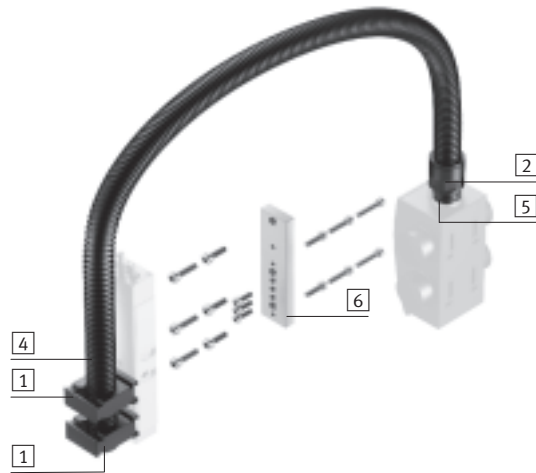
1) Length depends on the stroke of the drive

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

Pick & Place

Z modules

Mini slides DGSL



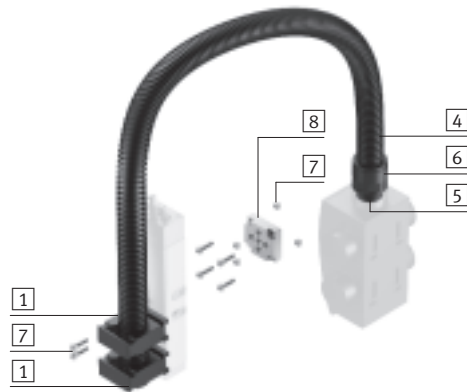
| Bill of materials | | | | | | | | |
|-------------------|-----------------|----------|--------------------|----------|-----------------|----------|-----------------|------|
| Type | HMBSZ-DGSL-4 | | HMBSZ-DGSL-5 | | HMBSZ-DGSL-6 | | → Page/Internet | |
| For drives | DGSL-16 | | DGSL-20 | | DGSL-25 | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | | Type |
| 1 | 2 | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 101 |
| | | 548 803 | ZBV-M5-7 | 548 804 | ZBV-M6-9 | 548 804 | ZBV-M6-9 | 67 |
| | | 177 571 | MKRV-16,5-PG-16 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 96 |
| 4 | 1 ¹⁾ | 177 566 | MKR-16,5-PG-16 | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | 94 |
| 5 | 1 | 193 949 | MKA-PG-29-PG-16-KU | 177 595 | MKA-PG-29-PG-21 | 177 595 | MKA-PG-29-PG-21 | 99 |
| 6 | 1 | 548 779 | HMSV-49 | 548 779 | HMSV-49 | 548 779 | HMSV-49 | 10 |

1) Length depends on the stroke of the drive

Pick & Place

Z modules

Mini slides DGSL



| Bill of materials | | | | | |
|-------------------|-----------------|-------------------------------|--------------------------------|-------------------------------|-----------------|
| Type | | HMBSZ-DGSL-10 | HMBSZ-DGSL-11 | HMBSZ-DGSL-12 | |
| For drives | | DGSL-10 | DGSL-12 | DGSL-12/-16 | |
| Position | Quantity | Part No. Type | Part No. Type | Part No. Type | → Page/Internet |
| 1 | 2 | 192 289 MKRS-16,5-B | 192 289 MKRS-16,5-B | 192 289 MKRS-16,5-B | 102 |
| | | M4x12 DIN 912 | 548 803 ZBV-M5-7 | 548 803 ZBV-M5-7 | 67 |
| 4 | 1 ¹⁾ | 177 566 MKR-16,5-PG-16 | 177 566 MKR-16,5-PG-16 | 177 566 MKR-16,5-PG-16 | 94 |
| 5 | 1 | 193 949 MKA-PG-29-PG-16-KU | 193 949 MKA-PG-29-PG-16-KU | 193 949 MKA-PG-29-PG-16-KU | 99 |
| 6 | 1 | 177 571 MKRV-16,5-PG-16 | 177 571 MKRV-16,5-PG-16 | 177 571 MKRV-16,5-PG-16 | 96 |
| 7 | 1 | 548 803 ZBV-M5-7 | – | 548 804 ZBV-M6-9 | 67 |
| | 1 | – | 186 717 ZBH-7 ²⁾ | – | 66 |
| | 2 | – | M5x14 DIN 912 | – | – |
| 8 | 1 | 560 017 HMSV-61 | 560 017 HMSV-61 | 560 018 HMSV-62 | 44 |

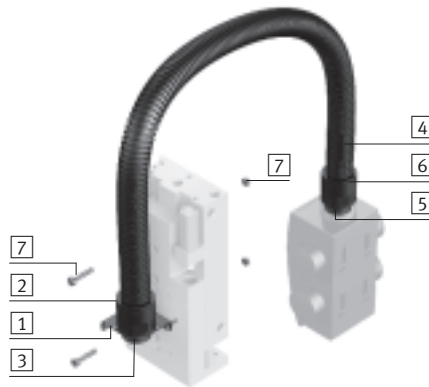
1) Length depends on the stroke of the drive

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

Pick & Place

Z modules

Mini slides SLT



| Bill of materials | | | | | | | | |
|-------------------|-----------------|---------------|--------------------|---------------|-----------------|---------------|-----------------|------|
| Type | HMBSZ-SLT-1 | | HMBSZ-SLT-2 | | HMBSZ-SLT-3 | | → Page/Internet | |
| For drives | SLT-10 | | SLT-16 | | SLT-20 | | | |
| Position | 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 | 102 |
| 2 | 1 | - | | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 96 |
| 3 | 1 | - | | 177 599 | MKM-PG-21 | 177 599 | MKM-PG-21 | 101 |
| 4 | 1 ¹⁾ | 177 566 | MKR-16,5-PG-16 | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | 94 |
| 5 | 1 | 193 949 | MKA-PG-29-PG-16-KU | 177 595 | MKA-PG-29-PG-21 | 177 595 | MKA-PG-29-PG-21 | 99 |
| 6 | 1 | 177 571 | MKRV-16,5-PG-16 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 96 |
| 7 | - ²⁾ | 186 717 | ZBH-7 | 150 927 | ZBH-9 | 189 653 | ZBH-12 | - |
| | 2 | M4x25 DIN 912 | | M5x30 DIN 912 | | M6x40 DIN 912 | | - |

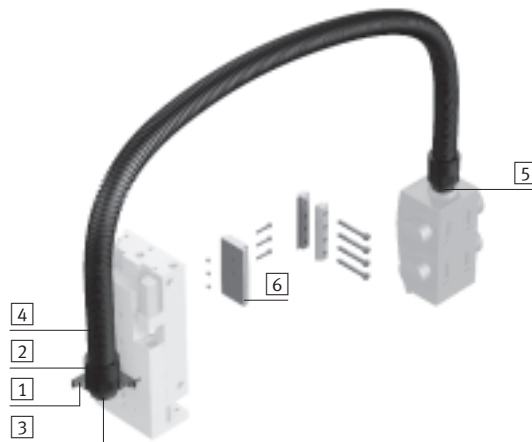
1) Length depends on the stroke of the drive

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

Pick & Place

Z modules

Mini slides SLT



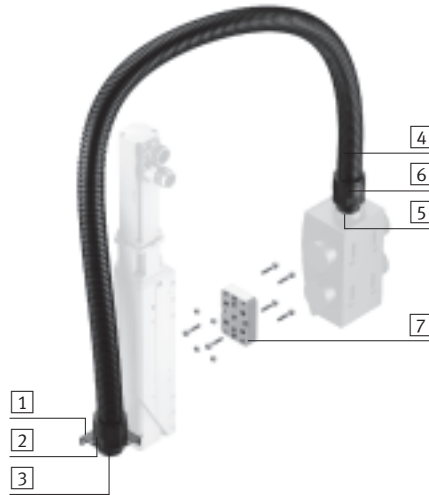
| Bill of materials | | | | | | |
|-------------------|-----------------|-------------|-----------------|-------------|-----------------|-----------------|
| Type | | HMBSZ-SLT-4 | HMBSZ-SLT-5 | HMBSZ-SLT-6 | | |
| For drives | | SLT-16 | SLT-20 | SLT-25 | | |
| Position | Quantity | Part No. | Type | Part No. | Type | → Page/Internet |
| [1] | 1 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 102 |
| [2] | 2 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 96 |
| [3] | 1 | 177 599 | MKM-PG-21 | 177 599 | MKM-PG-21 | 101 |
| [4] | 1 ¹⁾ | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | 94 |
| [5] | 1 | 177 595 | MKA-PG-29-PG-21 | 177 595 | MKA-PG-29-PG-21 | 99 |
| [6] | 1 | 178 331 | HMSV-36 | 178 332 | HMSV-37 | 11 |

1) Length depends on the stroke of the drive

Pick & Place

Z modules

Cantilever axes EGSA



| Bill of materials | | | | |
|-------------------|-----------------|--------------|-----------------|-----------------|
| Type | | HMBSZ-EGSA-1 | | |
| For drives | | EGSA-50 | | |
| Position | Quantity | Part No. | Type | → Page/Internet |
| 1 | 1 | 193 124 | HMZAS-PG-21 | 102 |
| 2 | 1 | 177 572 | MKRV-23-PG-21 | 96 |
| 3 | 1 | 177 599 | MKM-PG-21 | 101 |
| 4 | 1 ¹⁾ | 177 567 | MKR-23-PG-21 | 94 |
| 5 | 1 | 177 595 | MKA-PG-29-PG-21 | 99 |
| 6 | 1 | 177 572 | MKRV-23-PG-21 | 96 |
| 7 | 1 | 560 019 | HMSV-63 | 44 |

1) Length depends on the stroke of the drive

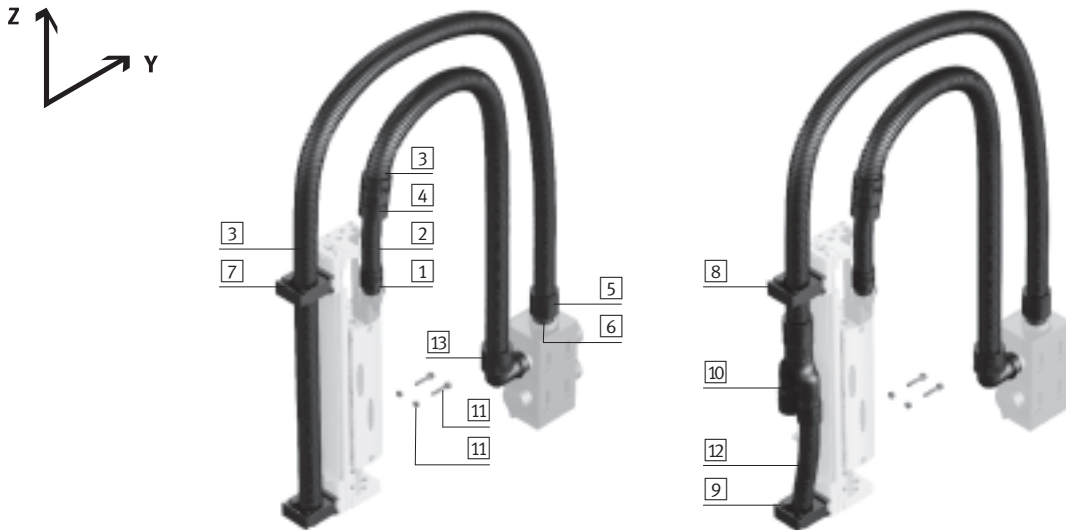
2) Centring sleeves are included in the scope of delivery of the mini slide SLT.

Pick & Place

Z modules

FESTO

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 | | |
| | without intermediate pos. | with intermediate position | without intermediate pos. | with intermediate position | | |
| Position | Quantity | Part No. Type | Part No. Type | Part No. Type | Part No. Type | → Page/Internet |
| 1 | 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 | 96 |
| 2 | 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 | 94 |
| 3 | 2 ¹⁾ | 177 567 MKR-23-PG-21 | 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 | 194 321 MKRT-23-16,5 | 98 |
| 5 | 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 | 96 |
| 6 | 2 | 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 | 99 |
| 7 | 2 ²⁾ | 192 290 MKRS-23-B | – | 192 290 MKRS-23-B | – | 101 |
| 8 | 1 ²⁾ | – | 192 290 MKRS-23-B | – | 192 290 MKRS-23-B | |
| 9 | 1 ²⁾ | – | 192 289 MKRS-16,5-B | – | 192 289 MKRS-16,5-B | |
| 10 | 1 | – | 193 946 MKY-PG-21-2PG-16 | – | 193 946 MKY-PG-21-2PG-16 | 98 |
| 11 | 1 ³⁾ | 150 927 ZBH-9 | 150 927 ZBH-9 | 150 927 ZBH-9 | 150 927 ZBH-9 | – |
| | 2 | M5x16 DIN 912 | M5x16 DIN 912 | M5x22 DIN 912 | M5x22 DIN 912 | – |
| 12 | 1 ¹⁾ | – | 177 566 MKR-16,5-PG-16 | – | 177 566 MKR-16,5-PG-16 | 94 |
| 13 | 1 | 177 577 MKRL-23-PG-21 | 177 577 MKRL-23-PG-21 | 177 577 MKRL-23-PG-21 | 177 577 MKRL-23-PG-21 | 97 |

1) Length depends on the stroke of the drive

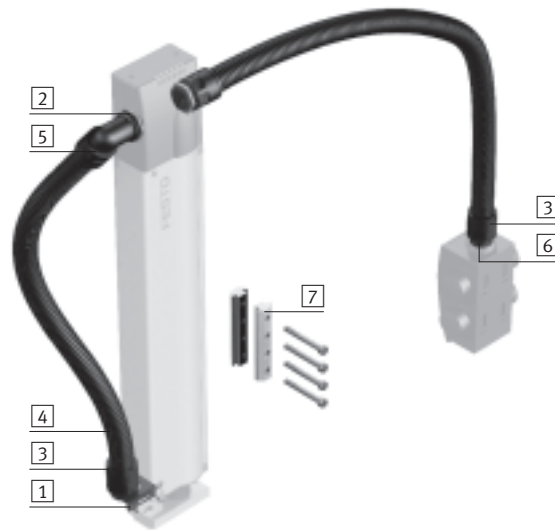
2) In order to be able to mount the retaining clip MKRS, a clamping component (2x code J) must be selected as an accessory in the order for the linear module HMPL.

3) 10 per packaging unit

Pick & Place

Z modules

Linear modules HMP



| Bill of materials | | | | | | | | |
|-------------------|-----------------|-------------|-----------------|-------------|---------------|-------------|---------------|-----------------|
| Type | | HMBSZ-HMP-1 | | HMBSZ-HMP-2 | | HMBSZ-HMP-3 | | → Page/Internet |
| For drives | | HMP-16 | | HMP-20 | | HMP-25 | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 1 | 193 124 | HMZAS-PG-21 | 177 603 | HMZAS-PG-29 | 177 603 | HMZAS-PG-29 | 102 |
| 2 | 3 | 177 599 | MKM-PG-21 | 177 600 | MKM-PG-29 | 177 600 | MKM-PG-29 | 101 |
| 3 | 3 | 177 572 | MKRV-23-PG-21 | 177 573 | MKRV-29-PG-29 | 177 573 | MKRV-29-PG-29 | 96 |
| 4 | 2 ¹⁾ | 177 567 | MKR-23-PG-21 | 177 568 | MKR-29-PG-29 | 177 568 | MKR-29-PG-29 | 94 |
| 5 | 1 | 177 577 | MKRL-23-PG-21 | 177 578 | MKRL-29-PG-29 | 177 578 | MKRL-29-PG-29 | 97 |
| 6 | 1 | 177 595 | MKA-PG-29-PG-21 | - | | - | | 99 |
| 7 | 1 | 177 647 | HMSV-1 | 177 649 | HMSV-3 | 177 653 | HMSV-7 | 68 |

1) Length depends on the stroke of the drive

Linear gantries

Key features

FESTO

Y and Z modules



Y modules

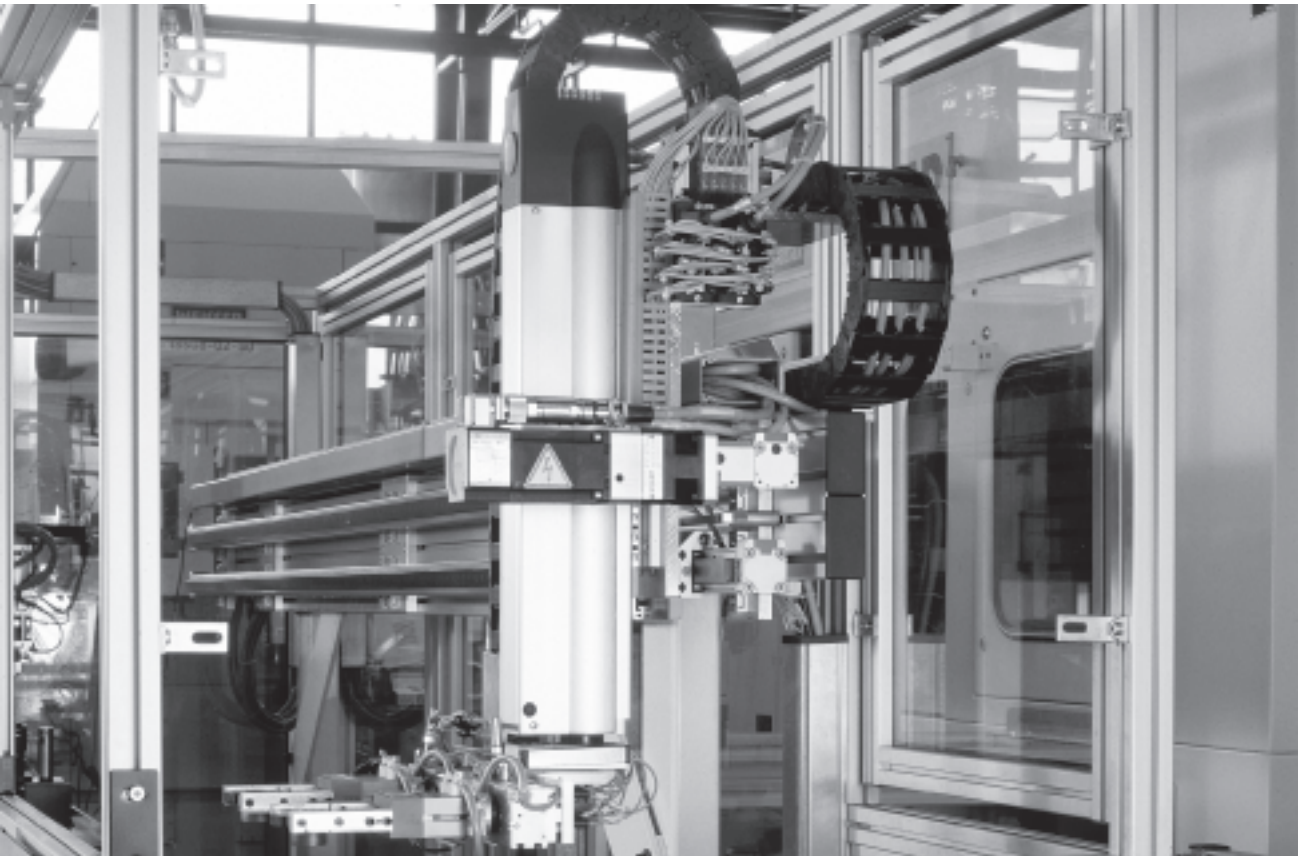
- Pneumatic: DGP, DGC
- Pneumatic with end-position controller SPC11 (Soft Stop): DGP
- Electrical: DGE
- Single-axis systems (mono) or drives with guide axis (duo)

Z modules

- Pneumatic: DGSL, SLT, HMPL, HMP
- Electrical: EGSA, DGE, DGEA

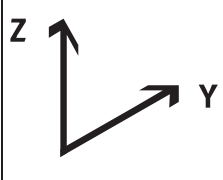


Gantry tubing and cables are routed via energy chains. Festo uses a support profile for this purpose specially designed for handling technology.

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 type | Pneumatic, pneumatic with end-position controller SPC11 (Soft Stop) or electrical | | | |
| Options | Spindle or toothed belt axis | | | |
| Z-axis | DGSL-12 SLT-16 HMPL-16 | DGSL-16 SLT-20 HMPL-20 HMP-16 | DGSL-20 SLT-25 HMP-20 | DGSL-25 HMP-25 |
| Drive type | Pneumatic | | | |
| Options | Intermediate position with HMPL | Intermediate position with HMPL, HMP | Intermediate position with HMP | |
| Z-axis | EGSA-50 DGEA-18 | EGSA-60 DGEA-18 DGE-25-SP-KF | EGSA-60 DGEA-25 DGE-40-SP-KF | DGEA-25 DGE-40-SP-KF |
| Drive type | Electrical | | | |
| Options | - | Spindle or toothed belt axis | Spindle or toothed belt axis | |
| Effective load [kg] | | | | |
| 1 | ■ | ■ | ■ | ■ |
| 2 | ■ | ■ | ■ | ■ |
| 3 | - | ■ | ■ | ■ |
| 4 | - | ■ | ■ | ■ |
| 6 | - | - | ■ | ■ |
| 10 | - | - | - | ■ |
| → Page/Internet | 26 | | | |

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 → 28 | – | HMBSY-LP-D25-1 → 30 | – |
| DGC-25 | HMBSY-LP-M25-2 → 28 | – | HMBSY-LP-D25-2 → 30 | – |
| DGPL-25 with SPC11 | HMBSY-LP-M25-3 → 28 | – | HMBSY-LP-D25-3 → 30 | – |
| DGPL-40 | – | HMBSY-LP-M40-1 → 29 | – | HMBSY-LP-D40-1 → 31 |
| DGC-40 | – | HMBSY-LP-M40-2 → 29 | – | HMBSY-LP-D40-2 → 31 |
| DGPL-40 with SPC11 | – | HMBSY-LP-M40-3 → 29 | – | HMBSY-LP-D40-3 → 31 |
| Electric drives | Type | | | |
| DGE-25 -SP-KF -ZR-KF -ZR-RF | HMBSY-LP-M25-1 → 28 HMBSY-LP-M25-4 → 28 | – | HMBSY-LP-D25-1 → 30 HMBSY-LP-D25-4 → 30 | – |
| DGE-40 -SP-KF -ZR-KF -ZR-RF | – | HMBSY-LP-M40-1 → 29 | – | HMBSY-LP-D40-1 → 31 |

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
→ 30
Z-axis: HMBSZ-SLT-7
→ 33

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-12 | HMBSZ-DGSL-7 → 32 | – | – | – |
| DGSL-16 | – | HMBSZ-DGSL-7 → 32 | HMBSZ-DGSL-7 → 32 | – |
| DGSL-20 | – | – | HMBSZ-DGSL-8 → 32 | – |
| DGSL-25 | – | – | – | HMBSZ-DGSL-8 → 32 |
| SLT-16 | HMBSZ-SLT-7 → 33 | – | – | – |
| SLT-20 | – | HMBSZ-SLT-7 → 33 | HMBSZ-SLT-7 → 33 | – |
| SLT-25 | – | – | HMBSZ-SLT-7 → 33 | – |
| HMPL-16 | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 34 | – | – | – |
| HMPL-20 | – | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 34 | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 34 | – |
| HMP-16 | – | HMBSZ-HMP-4 → 36 | HMBSZ-HMP-4 → 36 | – |
| HMP-20 | – | – | HMBSZ-HMP-5 → 36 | – |
| HMP-25 | – | – | – | HMBSZ-HMP-6 → 36 |
| Electric drives | Type | | | |
| EGSA-50 | HMBSZ-EGSA-2 → 35 | – | – | – |
| EGSA-60 | – | HMBSZ-EGSA-2 → 35 | HMBSZ-EGSA-2 → 35 | – |
| DGEA-18 | HMBSZ-DGEA-1 → 37 | HMBSZ-DGEA-1 → 37 | HMBSZ-DGEA-1 → 37 | – |
| DGEA-25 | – | – | HMBSZ-DGEA-2 → 37 | HMBSZ-DGEA-3 → 37 |
| DGE-25-SP | – | HMBSZ-DGE-1 → 38 | HMBSZ-DGE-1 → 38 | – |
| DGE-40-SP | – | – | HMBSZ-DGE-2 → 38 | HMBSZ-DGE-3 → 38 |

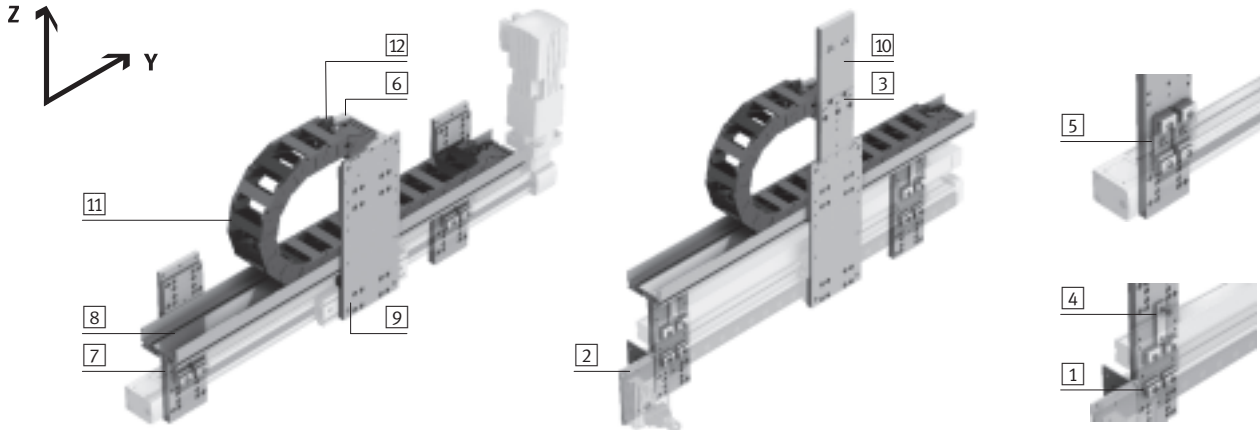
Linear gantries

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 | | | | | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | Page/Internet | |
| 1 | 2 ¹⁾ | 150 736 | | – | | 150 736 | | mup | |
| | 1 ¹⁾ | – | | 531 753 | | – | | muc | |
| | | MUP-18/25 | | MUC-25 | | MUP-18/25 | | | |
| 2 | 1 | – | | – | | 539 367 | | 86 | |
| | | | | | | HMVW-SPC | | | |
| 3 | 1 | – | | – | | 539 364 | | 110 | |
| | | | | | | HMIM-LP | | | |
| 4 | 1 ¹⁾ | – | | – | | 539 973 | | 85 | |
| | | | | | | HMVO-POT | | | |
| 5 | 2 ¹⁾ | – | | – | | – | | 85 | |
| | | | | | | 539 362 | | | |
| | | | | | | HMVO-RF25 | | | |
| 6 | 1 | 539 366 | | 539 366 | | 539 366 | | 110 | |
| | | HMIO-AP1 | | HMIO-AP1 | | HMIO-AP1 | | | |
| 7 | 2 ²⁾ | 539 972 | | 539 972 | | 539 972 | | 80 | |
| | | HMVM-LP-DL25/40 | | HMVM-LP-DL25/40 | | HMVM-LP-DL25/40 | | | |
| 8 | 1 ³⁾ | 539 378 | | 539 378 | | 539 378 | | 109 | |
| | | HMIA-E05 | | HMIA-E05 | | HMIA-E05 | | | |
| 9 | 1 | 539 368 | | 539 368 | | 539 368 | | 84 | |
| | | HMVS-DL25 | | HMVS-DL25 | | HMVS-DL25 | | | |
| 10 | 1 | – | | – | | 539 365 | | 108 | |
| | | | | | | HMIZB-E03 | | | |
| 11 | 1 | IGUS E2 medium 240.05.100 and 211 or ENERGY CHAIN MC 0320.60-01-100 and TS O/n72 | | | | | | | – |
| 12 | 1 | IGUS E2 medium 2050.12.PZB or ENERGY CHAIN MC FA/MA | | | | | | | – |

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

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

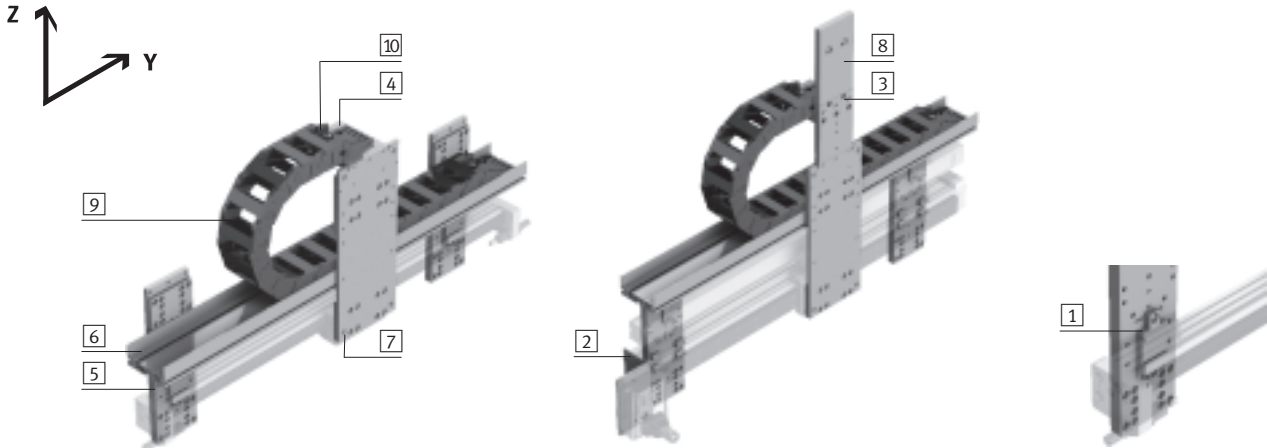
3) Length depends on the stroke of the drive

Linear gantries

Y modules

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 | | → Page/Internet |
| 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 | | | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type |
| 1 | 1 ¹⁾ | - | | 531 755 | | - | |
| | | | | MUC-40 | | | muc |
| 2 | 1 | - | | - | | 539 367 | |
| | | | | | | HMVW-SPC | 86 |
| 3 | 1 | - | | - | | 539 364 | |
| | | | | | | HMIM-LP | 110 |
| 4 | 1 | 539 366 | | 540 121 | | 539 366 | |
| | | HMIO-AP-1 | | HMIO-AP-2 | | HMIO-AP-1 | 110 |
| 5 | 2 ²⁾ | 539 972 | | 539 972 | | 539 972 | |
| | | HMVM-LP-DL25/40 | | HMVM-LP-DL25/40 | | HMVM-LP-DL25/40 | 80 |
| 6 | 1 ³⁾ | 539 378 | | 539 378 | | 539 378 | |
| | | HMIA-E05 | | HMIA-E05 | | HMIA-E05 | 109 |
| 7 | 1 | 539 369 | | 539 369 | | 539 369 | |
| | | HMVS-DL40 | | HMVS-DL40 | | HMVS-DL40 | 84 |
| 8 | 1 | - | | - | | 539 365 | |
| | | | | | | HMIZB-E03 | 108 |
| 9 | 1 | IGUS E2 medium 240.05.100 and 211 or ENERGY CHAIN MC 0320.60-01-100 and TS O/η ₂ | | | | | - |
| 10 | 1 | IGUS E2 medium 2050.12.PZB or ENERGY CHAIN MC FA/MA | | | | | - |

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

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

3) Length depends on the stroke of the drive

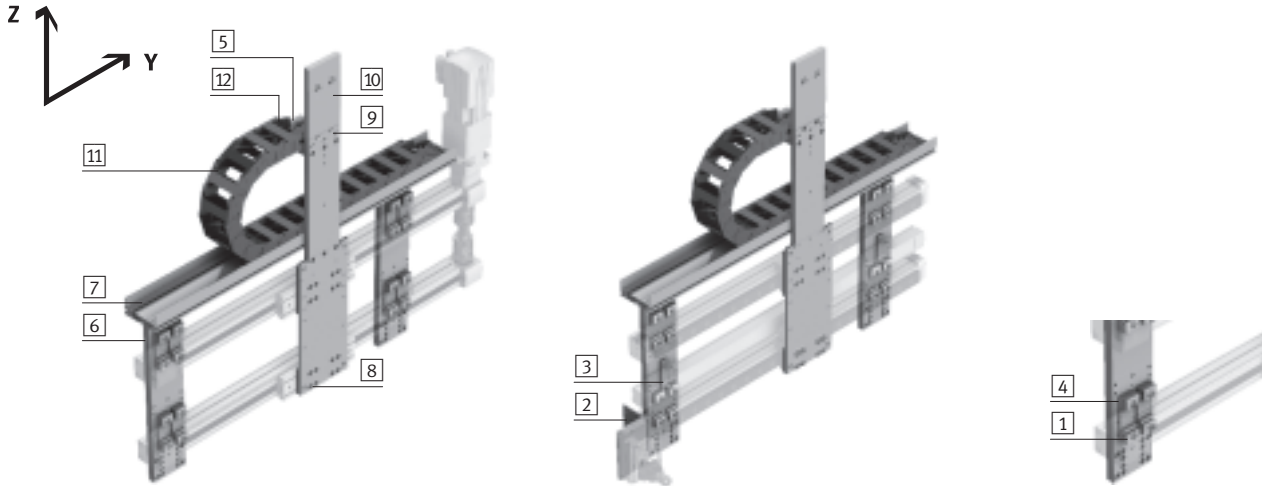
Linear gantries

Y modules

FESTO

Duo system

Toothed belt axes DGE, linear drives DGC, DGPL



| Bill of materials | | | | | | | → Page/Internet |
|-------------------|---|--|--------------------|----------------|-----------------|----------|----------------------|
| 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 | | | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type |
| 1 | 4 ¹⁾ | 150 736 | MUP-18/25 | – | | 150 736 | MUP-18/25 |
| | 2 ¹⁾ | – | | 531 753 | MUC-25 | – | |
| 2 | 1 | – | | – | | 539 367 | HMVW-SPC |
| 3 | 1 ¹⁾ | – | | – | | 539 973 | HMVO-POT |
| 4 | 4 ¹⁾ | – | | – | | – | 539 362 HMVO-RF25 |
| 5 | 1 | 539 366 | HMIO-AP-1 | 539 366 | HMIO-AP-1 | 539 366 | HMIO-AP-1 |
| 6 | 2 ²⁾ | 539 971 | HMVD-LP-DL25/40 | 539 971 | HMVD-LP-DL25/40 | 539 971 | HMVD-LP-DL25/40 |
| 7 | 1 ³⁾ | 539 378 | HMIA-E05 | 539 378 | HMIA-E05 | 539 378 | HMIA-E05 |
| 8 | 1 | 539 368 | HMVS-DL25 | 539 368 | HMVS-DL25 | 539 368 | HMVS-DL25 |
| 9 | 1 | 539 363 | HMID-LP | 539 363 | HMID-LP | 539 363 | HMID-LP |
| 10 | 1 | 539 365 | HMIZB-E03 | 539 365 | HMIZB-E03 | 539 365 | HMIZB-E03 |
| 11 | 1 | IGUS E2 medium 240.05.100 and 211 or ENERGY CHAIN MC 0320.60-01-100 and TS O/n ₇ 2 | | | | | – |
| 12 | 1 | IGUS E2 medium 2050.12.PZB or ENERGY CHAIN MC FA/MA | | | | | – |

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

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

3) Length depends on the stroke of the drive

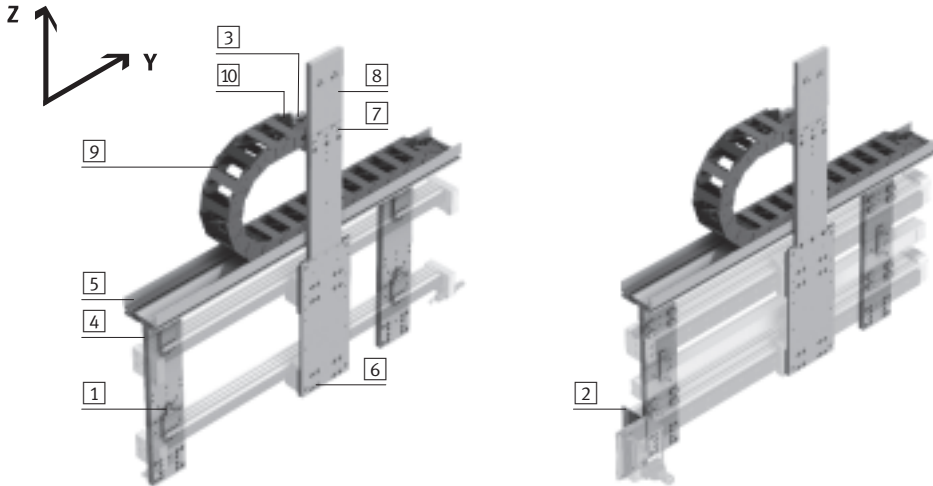
Linear gantries

Y modules

FESTO

Duo system

Toothed belt axes DGE, linear drives DGC, DGPL



| Bill of materials | | | | | | | | |
|-------------------|-----------------|--|-----------------|--------------------|-----------------|----------|-----------------|-----------------|
| Type | | HMBSY-LP-D40-1 | HMBSY-LP-D40-2 | HMBSY-LP-D40-3 | | | | |
| For drives | | DGPL-40 DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF | DGC-40 | DGPL-40 with SPC11 | | | | |
| System type | | Duo 40 | | | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet |
| 1 | 2 ¹⁾ | – | | 531 755 | MUC-40 | – | | muc |
| 2 | 1 | – | | – | | 539 367 | HMVW-SPC | 86 |
| 3 | 1 | 539 366 | HMIO-AP-1 | 540 121 | HMIO-AP-2 | 539 366 | HMIO-AP-1 | 110 |
| 4 | 2 ²⁾ | 539 971 | HMVD-LP-DL25/40 | 539 971 | HMVD-LP-DL25/40 | 539 971 | HMVD-LP-DL25/40 | 80 |
| 5 | 1 ³⁾ | 539 378 | HMIA-E05 | 539 378 | HMIA-E05 | 539 378 | HMIA-E05 | 109 |
| 6 | 1 | 539 369 | HMVS-DL40 | 539 369 | HMVS-DL40 | 539 369 | HMVS-DL40 | 84 |
| 7 | 1 | 539 363 | HMID-LP | 539 363 | HMID-LP | 539 363 | HMID-LP | 110 |
| 8 | 1 | 539 365 | HMIZB-E03 | 539 365 | HMIZB-E03 | 539 365 | HMIZB-E03 | 108 |
| 9 | 1 | IGUS E2 medium 240.05.100 and 211 or ENERGY CHAIN MC 0320.60-01-100 and TS O/n _T 2 | | | | | | – |
| 10 | 1 | IGUS E2 medium 2050.12.PZB or ENERGY CHAIN MC FA/MA | | | | | | – |

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

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

3) Length depends on the stroke of the drive

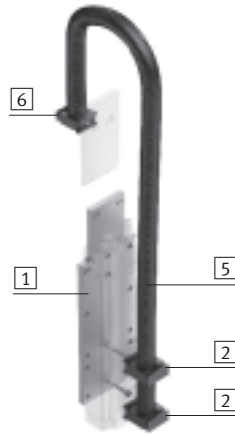
Linear gantries

Z modules

FESTO

Mono/Duo system

Mini slides DGSL



| Bill of materials | | | | | | | | |
|-------------------|-----------------|--------------|-------------------|--------------|----------------|----------|--------------|-----------------|
| Type | | HMBSZ-DGSL-7 | | HMBSZ-DGSL-8 | | | | |
| For drives | | DGSL-12 | DGSL-16 | DGSL-20 | DGSL-25 | | | |
| System type | | Mono 25 | Mono 40 Duo 25 | Duo 25 | Duo 40 | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet |
| 1 | 1 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 82 |
| 2 | 1 | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 101 |
| | | 548 803 | ZBV-M5-7 | 548 803 | ZBV-M5-7 | 548 804 | ZBV-M5-9 | 67 |
| | | | | | | | | |
| 5 | 1 ¹⁾ | 177 566 | MKR-16,5-PG-16 | 177 566 | MKR-16,5-PG-16 | 177 567 | MKR-23-PG-21 | 94 |
| | | | | | | | | |
| 6 | 1 | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 101 |

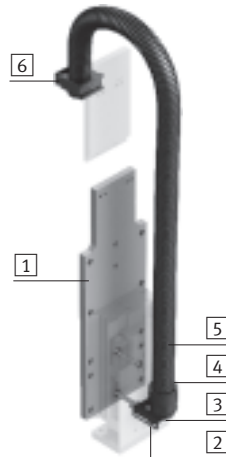
1) Length depends on the stroke of the drive

Linear gantries

Z modules

Mono/Duo system

Mini slides SLT



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

1) Length depends on the stroke of the drive

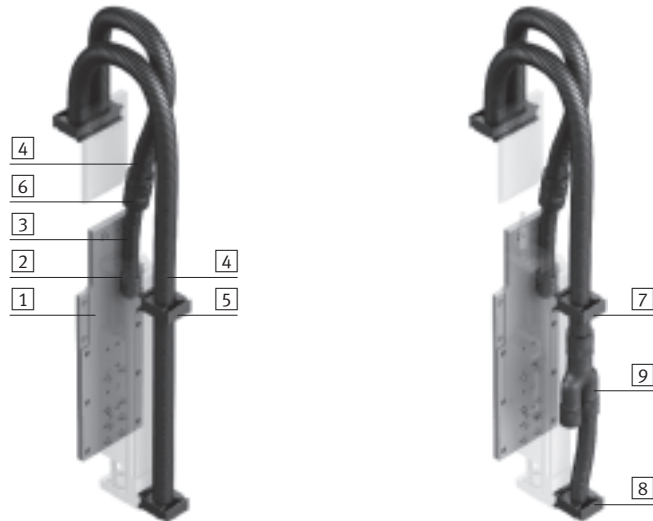
Linear gantries

Z modules

FESTO

Mono/Duo system

Linear modules HMPL



| Bill of materials | | | | | | | | |
|-------------------|-------------------------------|----------|-------------------|----------------------------|-----------------|-------------------|------------------|-----|
| Type | HMBSZ-HMPL-5 | | | HMBSZ-HMPL-6 | | | → Page/Internet | |
| For drives | HMPL-16 | | HMPL-20 | HMPL-16 | | HMPL-20 | | |
| | without intermediate position | | | with intermediate position | | | | |
| System type | Mono 25 | | Mono 40 Duo 25 | Mono 25 | | Mono 40 Duo 25 | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 1 | 539 375 | HMVZ-4 | 539 375 | HMVZ-4 | 539 375 | HMVZ-4 | 82 |
| 2 | 1 | 177 571 | MKRV-16,5-PG-16 | 177 571 | MKRV-16,5-PG-16 | 177 571 | MKRV-16,5-PG-16 | 96 |
| 3 | 1 ¹⁾ | 177 566 | MKR-16,5-PG-16 | 177 566 | MKR-16,5-PG-16 | 177 566 | MKR-16,5-PG-16 | 94 |
| 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 | - | - | 101 |
| 6 | 1 | 194 321 | MKRT-23-16,5 | 194 321 | MKRT-23-16,5 | 194 321 | MKRT-23-16,5 | 98 |
| 7 | 3 ³⁾ | - | - | - | - | 192 290 | MKRS-23-B | 101 |
| 8 | 1 | - | - | - | - | 192 289 | MKRS-16,5-B | |
| 9 | 1 | - | - | - | - | 193 946 | MKY-PG-21-2PG-16 | 98 |

1) Length 200 mm

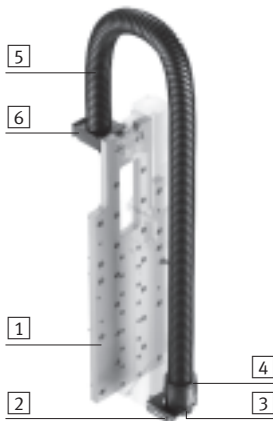
2) Length depends on the stroke of the drive, 2 conduits are required with an intermediate position.

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
Cantilever axes EGSA



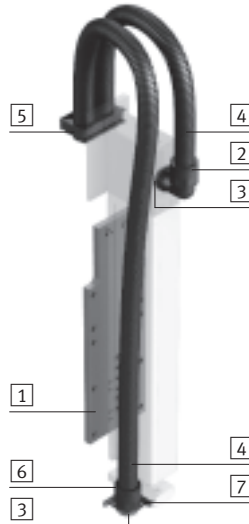
| Bill of materials | | | | | |
|-------------------|-----------------|--------------|-------------------|----------|-----------------|
| Type | | HMBSZ-EGSA-2 | | | → Page/Internet |
| For drives | | EGSA-50 | EGSA-60 | | |
| System type | | Mono 25 | Mono 40 Duo 25 | | |
| Position | Quantity | Part No. | Type | Part No. | Type |
| 1 | 1 | 560 021 | HMVZ-7 | 560 021 | HMVZ-7 |
| 2 | 1 | 193 124 | HMZAS-PG21 | 193 124 | HMZAS-PG21 |
| 3 | 1 | 177 599 | MKM-PG-21 | 177 599 | MKM-PG-21 |
| 4 | 1 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 |
| 5 | 1 ¹⁾ | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 |
| 6 | 1 | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B |

1) Length depends on the stroke of the drive.

Linear gantries

Z modules

Mono/Duo system
Linear modules HMP



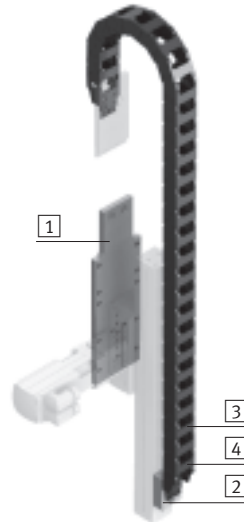
| Bill of materials | | | | | | |
|-------------------|-------------------|-------------|---------------|----------|---------------|-----------------|
| Type | HMBSZ-HMP-4 | HMBSZ-HMP-5 | HMBSZ-HMP-6 | | | |
| For drives | HMP-16 | HMP-20 | HMP-25 | | | |
| System type | Mono 40 Duo 25 | Duo 25 | Duo 40 | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | → Page/Internet |
| 1 | 1 | 539 374 | HMVZ-3 | 539 374 | HMVZ-3 | 82 |
| 2 | 1 | 177 577 | MKRL-23-PG-21 | 177 578 | MKRL-29-PG-29 | 97 |
| 3 | 2 | 177 599 | MKM-PG-21 | 177 600 | MKM-PG-29 | 101 |
| 4 | 1 ¹⁾ | 177 567 | MKR-23-PG-21 | 177 568 | MKR-29-PG-29 | 94 |
| 5 | 2 | 192 290 | MKRS-23-B | 192 291 | MKRS-29-B | 101 |
| 6 | 1 | 177 572 | MKRV-23-PG-21 | 177 573 | MKRV-29-PG-29 | 96 |
| 7 | 1 | 193 124 | HMZAS-PG-21 | 177 603 | HMZAS-PG-29 | 102 |

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 | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet |
| 1 | 1 | 539 374 | HMVZ-3 | 539 375 | HMVZ-4 | 539 377 | HMVZ-6 | 82 |
| 2 | 1 | 539 370 | HMIZF-E03-DA18 | 539 371 | HMIZF-E03-DA25 | 539 371 | HMIZF-E03-DA25 | 108 |
| 3 | 1 ¹⁾ | IGUS E2 medium 240.03.075.0 and 211 or ENERGY CHAIN MC 0320.40-01-77 and TS O/n ₁ 2 | | | | | | - |
| 4 | 1 | IGUS E2 medium 2030.12.PZB or ENERGY CHAIN MC FA/MA | | | | | | - |

1) Length depends on the stroke of the drive

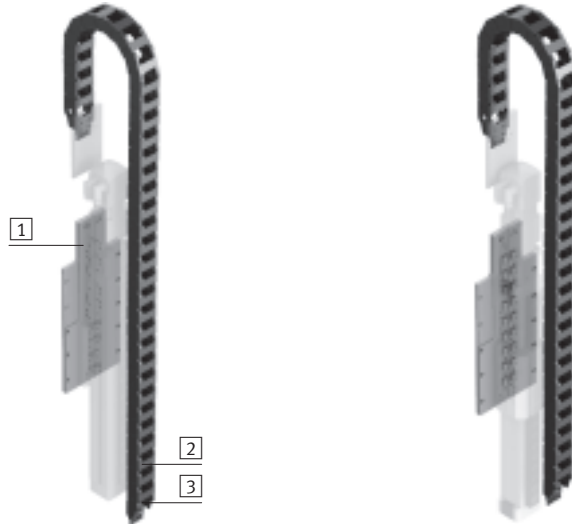
Linear gantries

Z modules

FESTO

Mono/Duo system

Spindle axes DGE



| Bill of materials | | | | | | | | |
|-------------------|-------------------|---|-------------|----------|-------------|----------|-----------------|----|
| Type | HMBSZ-DGE-1 | | HMBSZ-DGE-2 | | HMBSZ-DGE-3 | | → Page/Internet | |
| For drives | DGE-25-SP | | DGE-40-SP | | DGE-40-SP | | | |
| System type | Mono 40 Duo 25 | | Duo 25 | | Duo 40 | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 1 | 539 374 | HMVZ-3 | 539 375 | HMVZ-4 | 539 377 | HMVZ-6 | 82 |
| 2 | 1 ¹⁾ | IGUS E2 medium 240.03.075.0 and 211 or ENERGY CHAIN MC 0320.40-01-77 and TS O/n _T 2 | | | | | - | |
| 3 | 1 | IGUS E2 medium 2030.12.PZB or ENERGY CHAIN MC FA/MA | | | | | - | |

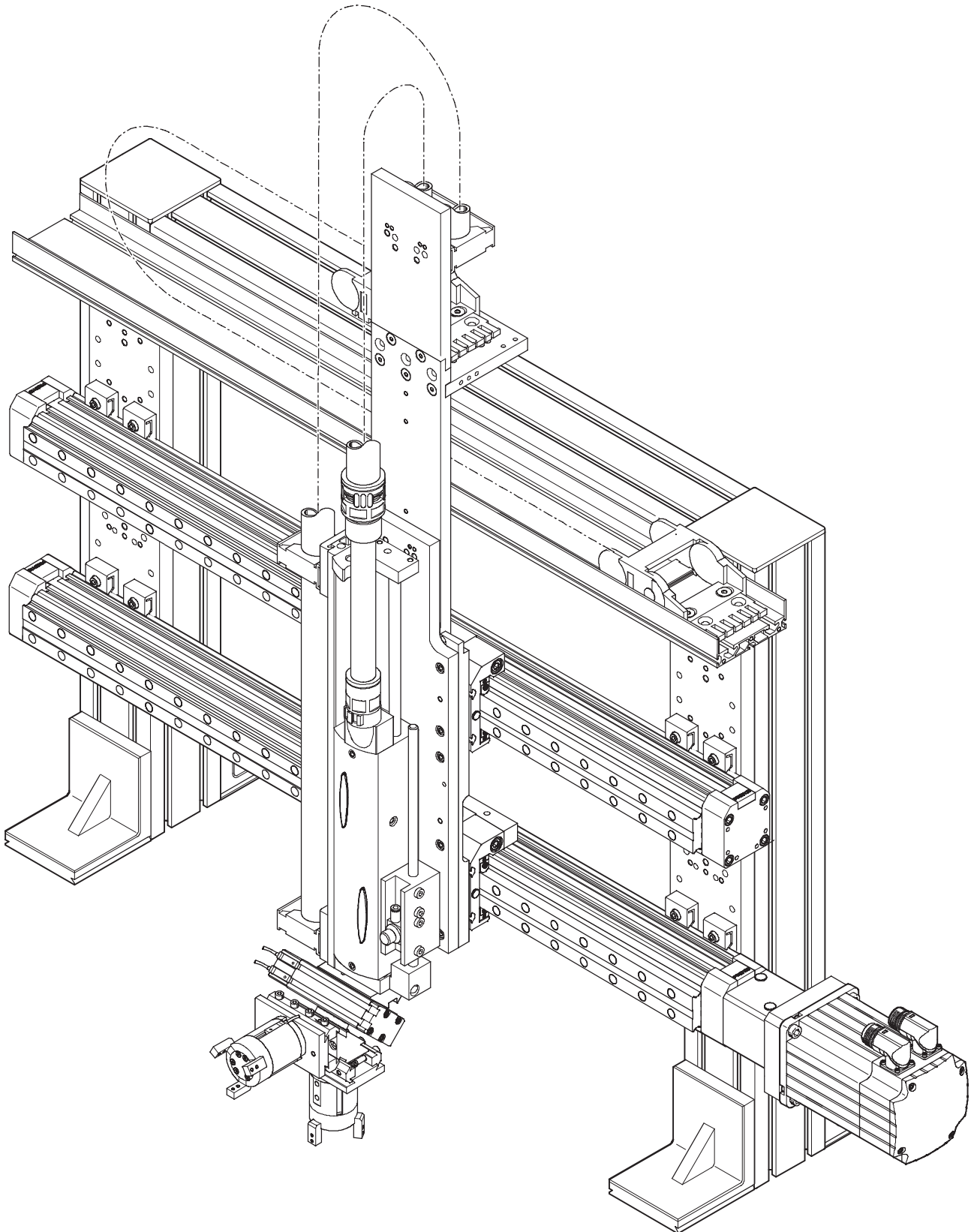
1) Length depends on the stroke of the drive

Linear gantries

System example

FESTO

Combination with handling module HMPL, swivel module DRQD and three-point gripper HGD

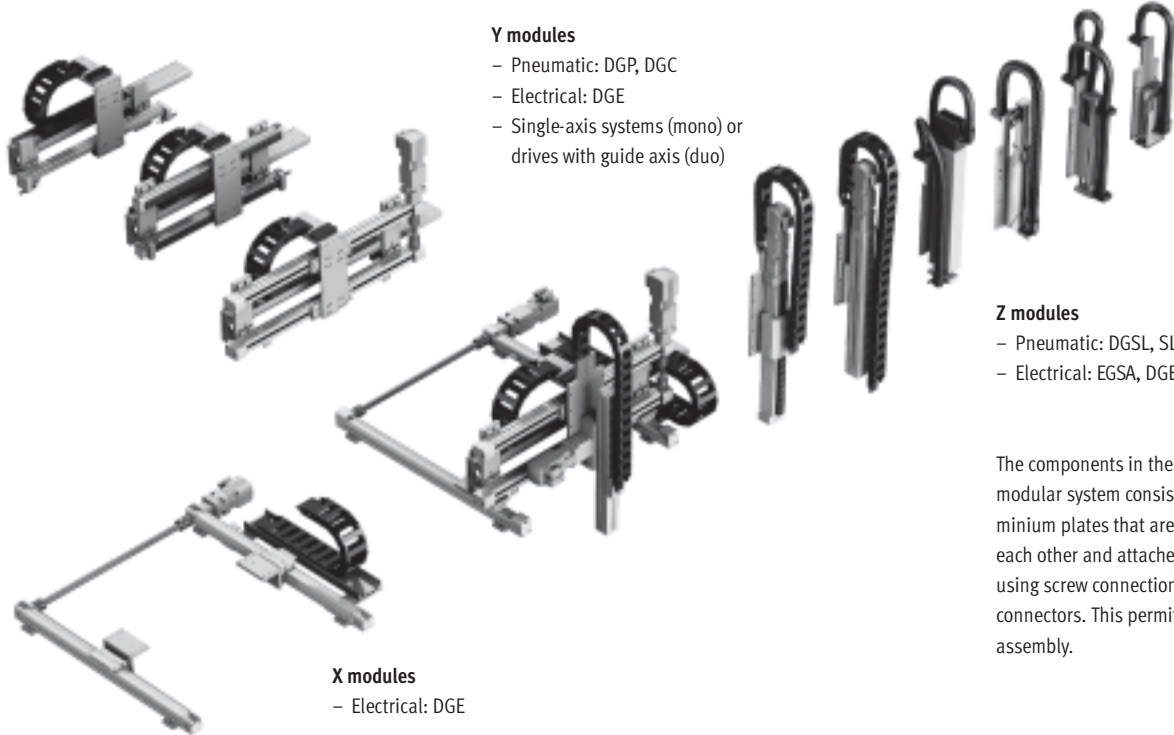


Three-dimensional gantries

Key features

FESTO

X, Y and Z modules



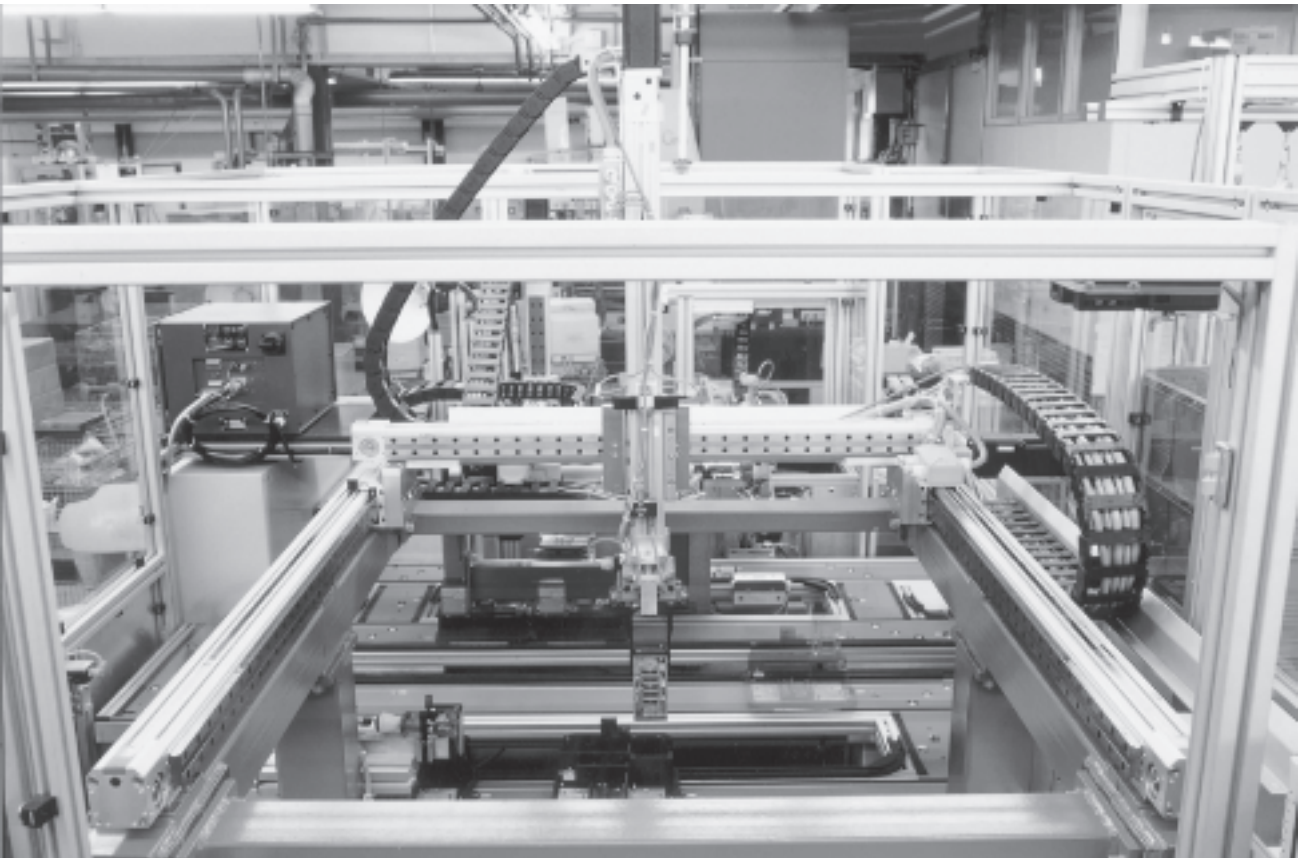
- Y modules**
- Pneumatic: DGP, DGC
 - Electrical: DGE
 - Single-axis systems (mono) or drives with guide axis (duo)

- Z modules**
- Pneumatic: DGSL, SLT, HMPL, HMP
 - Electrical: EGSA, DGE, DGEA

- X modules**
- Electrical: DGE

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

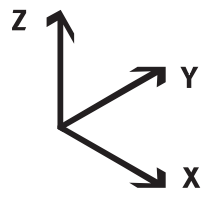




Application



Three-dimensional gantries




Product range overview

FESTO

| Selection aid | | | | | |
|---|---|--|--|--------------------------------|-----------|
| System type | Mono 25 | Mono 40 | Duo 25 | | Duo 40 |
|  |  | |  | | |
| X-axis | DGE-25-ZR | DGE-40-ZR | DGE-25-ZR | DGE-40-ZR | DGE-40-ZR |
| Drive type | Electric | | | | |
| Options | Ball bearing or roller guide | | | | |
| Y-axis | DG...-25 | DG...-40 | DG...-25 | DG...-40 | |
| |  | |  | | |
| Drive type | Pneumatic and electric | | | | |
| Options | Spindle or toothed belt axis | | | | |
| Z-axis | DGSL-12 SLT-16 HMPL-16 | DGSL-16 SLT-20 HMPL-20 HMP-16 | DGSL-20 SLT-25 HMP-20 | DGSL-25 HMP-25 | |
| Drive type | Pneumatic | | | | |
| Options | Intermediate position with HMPL | Intermediate position with HMPL, HMP | | Intermediate position with HMP | |
| Z-axis | EGSA-50 DGEA-18 | EGSA-60 DGEA-18 DGE-25-SP-KF | EGSA-60 DGEA-25 DGE-40-SP-KF | DGEA-25 DGE-40-SP-KF | |
| Drive type | Electric | | | | |
| Options | - | Spindle or toothed belt axis | | Spindle or toothed belt axis | |
| Effective load [kg] | | | | | |
| | 1 | ■ | ■ | ■ | ■ |
| | 2 | ■ | ■ | ■ | ■ |
| | 3 | - | ■ | ■ | ■ |
| | 4 | - | ■ | ■ | ■ |
| | 6 | - | - | ■ | ■ |
| | 10 | - | - | - | ■ |
| → Page/Internet | 42 | | | | |

Three-dimensional gantries

Selection aid for basic, connection and installation components

| X-axis | | | | | |
|---|--------|---|--------------------------|---|--------------------------|
| System type | | Mono 25 | Mono 40 | Duo 25 | Duo 40 |
|  | |  | |  | |
| Electric drives | | Type | | | |
| DGE-25 | -ZR-KF | HMBSX-RP/FP-25-1 → 45 | HMBSX-RP/FP-25-1 → 45 | HMBSX-RP/FP-25-1 → 45 | – |
| | -ZR-RF | HMBSX-RP/FP-25-2 → 45 | HMBSX-RP/FP-25-2 → 45 | HMBSX-RP/FP-25-2 → 45 | – |
| DGE-40 | -ZR-KF | – | HMBSX-RP/FP-40-1 → 45 | HMBSX-RP/FP-40-1 → 45 | HMBSX-RP/FP-40-1 → 45 |
| | -ZR-RF | – | HMBSX-RP/FP-40-2 → 45 | HMBSX-RP/FP-40-2 → 45 | HMBSX-RP/FP-40-2 → 45 |

Selection example:

Project engineering produced the following drive combination:

X-axis: DGE-40-ZR-KF

Y-axis: Mono 40 system with DGC-40

Z-axis: HMPL-20 without intermediate position

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.

X-axis: HMBSX-RP/FP-40-1
→ 45

Y-axis: HMBSY-RP/FP-M40-2
→ 46

Z-axis: HMBSZ-HMPL-5 or 6
→ 50

Step 2

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

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

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




Z-axis: HMBSZ-HMPL-5

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.




Three-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 → 46 | – | HMBSY-RP/FP-D25-1 → 47 | – |
| DGC-25 | HMBSY-RP/FP-M25-2 → 46 | – | HMBSY-RP/FP-D25-2 → 47 | – |
| DGPL-40 | – | HMBSY-RP/FP-M40-1 → 46 | – | HMBSY-RP/FP-D40-1 → 47 |
| DGC-40 | – | HMBSY-RP/FP-M40-2 → 46 | – | HMBSY-RP/FP-D40-2 → 47 |
| Electric drives | Type | | | |
| DGE-25 -SP-KF -ZR-KF -ZR-RF | HMBSY-RP/FP-M25-1 → 46 | – | HMBSY-RP/FP-D25-1 → 47 | – |
| DGE-40 -SP-KF -ZR-KF -ZR-RF | – | HMBSY-RP/FP-M40-1 → 46 | – | HMBSY-RP/FP-D40-1 → 47 |

Three-dimensional gantries

Selection aid for basic, connection and installation components

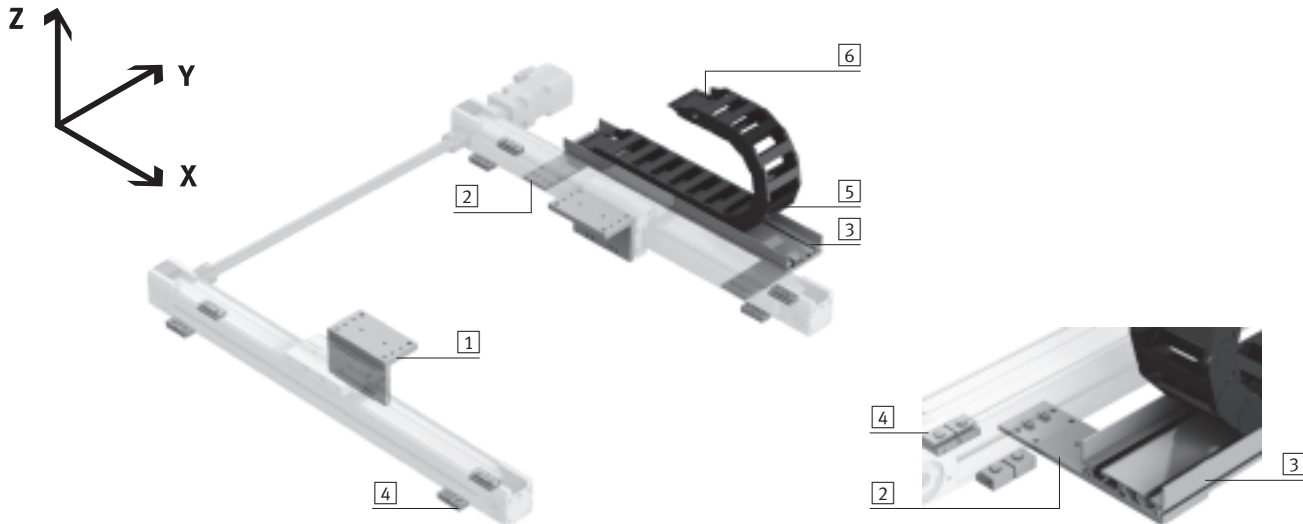
| Z-axis | | | | |
|---|---|--------------------------------------|---|----------------------|
| System type | Mono 25 | Mono 40 | Duo 25 | Duo 40 |
|  |  | |  | |
| Pneumatic drives | Type | | | |
| DGSL-12 | HMBSZ-DGSL-7 → 48 | – | – | – |
| DGSL-16 | – | HMBSZ-DGSL-7 → 48 | HMBSZ-DGSL-7 → 48 | – |
| DGSL-20 | – | – | HMBSZ-DGSL-8 → 48 | – |
| DGSL-25 | – | – | – | HMBSZ-DGSL-8 → 48 |
| SLT-16 | HMBSZ-SLT-7 → 49 | – | – | – |
| SLT-20 | – | HMBSZ-SLT-7 → 49 | HMBSZ-SLT-7 → 49 | – |
| SLT-25 | – | – | HMBSZ-SLT-7 → 49 | – |
| HMPL-16 | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 50 | – | – | – |
| HMPL-20 | – | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 50 | HMBSZ-HMPL-5 HMBSZ-HMPL-6 → 50 | – |
| HMP-16 | – | HMBSZ-HMP-4 → 51 | HMBSZ-HMP-4 → 51 | – |
| HMP-20 | – | – | HMBSZ-HMP-5 → 51 | – |
| HMP-25 | – | – | – | HMBSZ-HMP-6 → 51 |
| Electric drives | Type | | | |
| EGSA-50 | HMBSZ-EGSA-2 → 52 | – | – | – |
| EGSA-60 | – | HMBSZ-EGSA-2 → 52 | HMBSZ-EGSA-2 → 52 | – |
| DGEA-18 | HMBSZ-DGEA-1 → 53 | HMBSZ-DGEA-1 → 53 | HMBSZ-DGEA-1 → 53 | – |
| DGEA-25 | – | – | HMBSZ-DGEA-2 → 53 | HMBSZ-DGEA-3 → 53 |
| DGE-25-SP | – | HMBSZ-DGE-1 → 54 | HMBSZ-DGE-1 → 54 | – |
| DGE-40-SP | – | – | HMBSZ-DGE-2 → 54 | HMBSZ-DGE-3 → 54 |

Three-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/Internet | |
| For drives | DGE-25-ZR-KF | | DGE-25-ZR-RF | | DGE-40-ZR-KF | | DGE-40-ZR-RF | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 2 | 539 651 | HMVW-DL25 | 539 652 | HMVS-RF25 | 540 325 | HMVW-DL40 | 539 653 | HMVS-RF40 | 77 |
| 2 | 2 ¹⁾ | 539 654 | HMIXB-RP/FP | 539 654 | HMIXB-RP/FP | 539 654 | HMIXB-RP/FP | 539 654 | HMIXB-RP/FP | 111 |
| 3 | 1 ²⁾ | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 109 |
| 4 | 2 ³⁾ | 150 736 | MUP-18/25 | 150 736 | MUP-18/25 | - | - | - | - | mup |
| | 1 ³⁾ | - | - | - | - | 150 738 | MUP-40 | 150 738 | MUP-40 | mup |
| 5 | 1 ²⁾ | IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.80-01 and TS O/n _T 2 | | | | | | - | - | - |
| 6 | 1 | IGUS E2 medium 2070.12.PZB or ENERGY CHAIN MC FA/MA | | | | | | - | - | - |

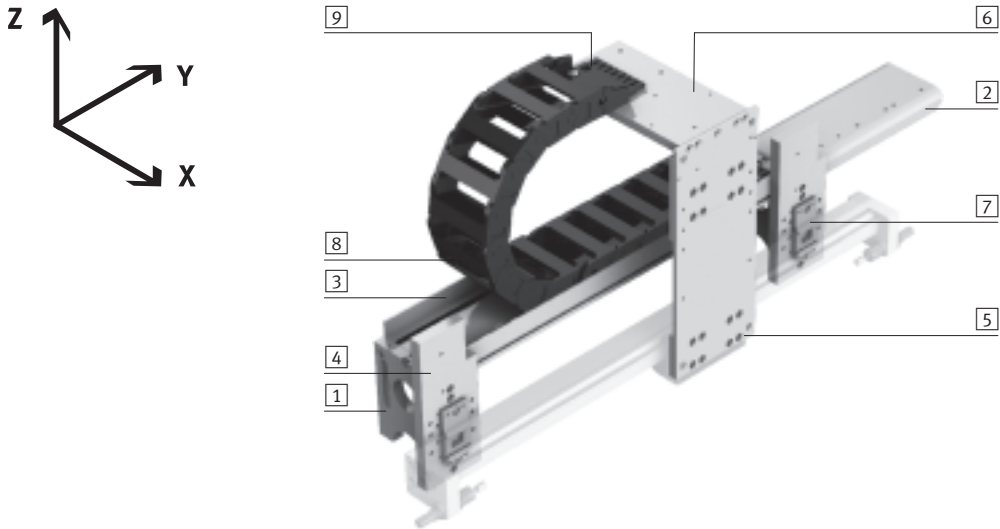
- 1) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, an installation kit HMIXB-RP/FP must be additionally ordered per 500 mm stroke or part thereof.
- 2) Length depends on the stroke of the drive
- 3) Every 500 mm per axis

Three-dimensional gantries

Y modules

FESTO

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



| Bill of materials | | | | | | | | | | |
|-------------------|---|---|--------------------|----------|---|----------|--------------------|----------|--------------------|-----------------|
| Type | HMBSY-RP/FP-M25-1 | | HMBSY-RP/FP-M25-2 | | HMBSY-RP/FP-M40-1 | | HMBSY-RP/FP-M40-2 | | | |
| For drives | DGE-25-SP-KF DGE-25-ZR-KF DGE-25-ZR-RF DGPL-25 | | DGC-25 | | DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF DGPL-40 | | DGC-40 | | | |
| System type | Mono 25 | | | | Mono 40 | | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet |
| [1] | 2 | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 79 |
| [2] | 1 | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 79 |
| [3] | 1 ¹⁾ | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 109 |
| [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 | 81 |
| [5] | 1 | 539 368 | HMVS-DL25 | 539 368 | HMVS-DL25 | 539 369 | HMVS-DL40 | 539 369 | HMVS-DL40 | 84 |
| [6] | 1 | 539 659 | HMIYF-RF/DL25 | 539 659 | HMIYF-RF/DL25 | 539 660 | HMIYF-RF/DL40 | 539 660 | HMIYF-RF/DL40 | 112 |
| [7] | 2 ²⁾ | 150 736 | MUP-18/25 | – | – | – | – | – | – | mup |
| | 1 ²⁾ | – | – | 531 753 | MUC-25 | – | – | 531 755 | MUC-40 | muc |
| | 1 ²⁾ | – | – | – | – | 150 738 | MUP-40 | – | – | mup |
| [8] | 1 ¹⁾ | IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.80-01 and TS O/h _T 2 | | | | | | | | – |
| [9] | 1 | IGUS E2 medium 2070.12.PZB or ENERGY CHAIN MC FA/MA | | | | | | | | – |

1) Length depends on the stroke of the drive

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

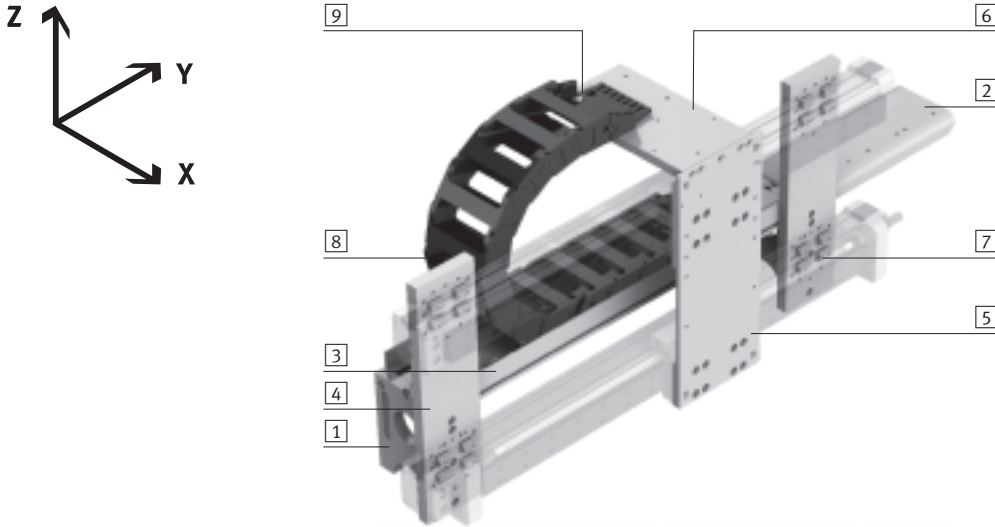
3) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVM-RP/FP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

Three-dimensional gantries

Y modules

Duo system

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 | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet |
| 1 | 2 | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 79 |
| 2 | 1 | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 79 |
| 3 | 1 ¹⁾ | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 109 |
| 4 | 2 ³⁾ | 539 655 | HMVD-RP/FP-DL25/40 | 539 655 | HMVD-RP/FP-DL25/40 | 539 655 | HMVD-RP/FP-DL25/40 | 81 |
| 5 | 1 | 539 368 | HMVS-DL25 | 539 368 | HMVS-DL25 | 539 369 | HMVS-DL40 | 84 |
| 6 | 1 | 539 659 | HMIYF-RF/DL25 | 539 659 | HMIYF-RF/DL25 | 539 660 | HMIYF-RF/DL40 | 112 |
| 7 | 4 ²⁾ | 150 736 | MUP-18/25 | – | – | – | – | mup |
| | 2 | – | – | 531 753 | MUC-25 | – | 531 755 | muc |
| 8 | 1 ¹⁾ | IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.80-01 and TS O/n _T 2 | | | | | | – |
| 9 | 1 | IGUS E2 medium 2070.12.PZB or ENERGY CHAIN MC FA/MA | | | | | | – |

1) Length depends on the stroke of the drive

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

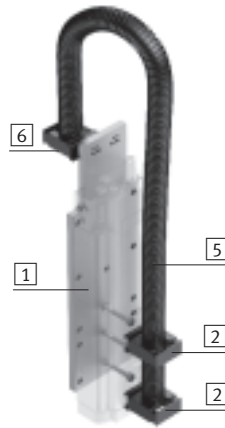
3) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVD-RP/FP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

Three-dimensional gantries

Z modules

Mono/Duo system

Mini slides DGSL



| Bill of materials | | | | | | | | |
|-------------------|-----------------|--------------|-------------------|--------------|----------------|-----------------|--------------|-----|
| Type | | HMBSZ-DGSL-7 | | HMBSZ-DGSL-8 | | → Page/Internet | | |
| For drives | | DGSL-12 | DGSL-16 | DGSL-20 | DGSL-25 | | | |
| System type | | Mono 25 | Mono 40 Duo 25 | Duo 25 | Duo 40 | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 1 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 82 |
| 2 | 1 | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 101 |
| | | 548 803 | ZBV-M5-7 | 548 803 | ZBV-M5-7 | 548 804 | ZBV-M5-9 | 67 |
| | | 177 566 | MKR-16,5-PG-16 | 177 566 | MKR-16,5-PG-16 | 177 567 | MKR-23-PG-21 | 94 |
| 5 | 1 ¹⁾ | 177 566 | MKR-16,5-PG-16 | 177 566 | MKR-16,5-PG-16 | 177 567 | MKR-23-PG-21 | 94 |
| 6 | 1 | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 101 |
| | | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | |

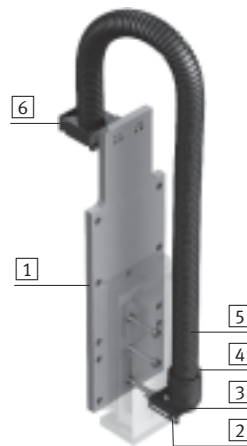
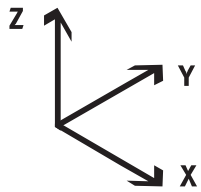
1) Length depends on the stroke of the drive

Three-dimensional gantries

Z modules

Mono/Duo system

Mini slides SLT



| Bill of materials | | | | | | |
|-------------------|-----------------|-------------|-------------------|----------|---------------|-----------------|
| Type | | HMBSZ-SLT-7 | | | | → Page/Internet |
| For drives | | SLT-16 | SLT-20 | SLT-25 | | |
| System type | | Mono 25 | Mono 40 Duo 25 | Duo 25 | | |
| Position | Quantity | Part No. | Type | Part No. | Type | |
| 1 | 1 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 82 |
| 2 | 1 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 102 |
| 3 | 1 | 177 599 | MKM-PG-21 | 177 599 | MKM-PG-21 | 101 |
| 4 | 1 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 96 |
| 5 | 1 ¹⁾ | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | 94 |
| 6 | 1 | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 101 |

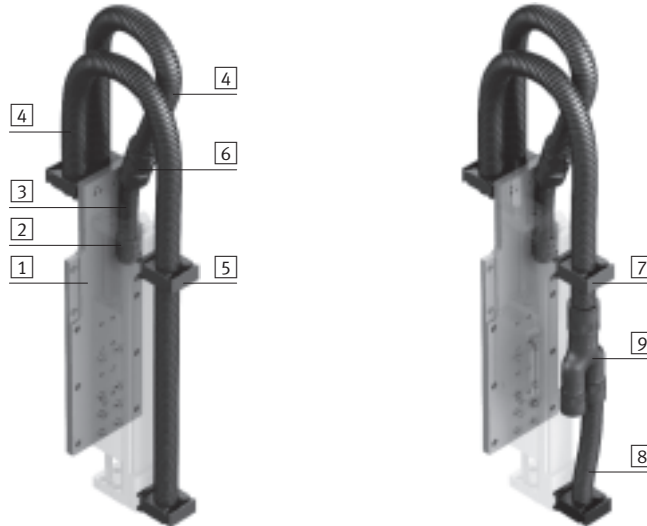
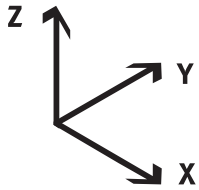
1) Length depends on the stroke of the drive

Three-dimensional gantries

Z modules

Mono/Duo system

Linear modules HMPL



| Bill of materials | | | | | | | | | | |
|-------------------|-----------------|-------------------------------|-----------------|----------------------------|-----------------|----------|------------------|-------------------|------------------|-----------------|
| Type | | HMBSZ-HMPL-5 | | HMBSZ-HMPL-6 | | | | | | |
| 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 | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet |
| 1 | 1 | 539 375 | HMVZ-4 | 539 375 | HMVZ-4 | 539 375 | HMVZ-4 | 539 375 | HMVZ-4 | 82 |
| 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 | 96 |
| 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 | 94 |
| 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 | - | - | - | - | 101 |
| 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 | 98 |
| 7 | 3 ³⁾ | - | - | - | - | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 101 |
| 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 | 98 |

1) Length 200 mm

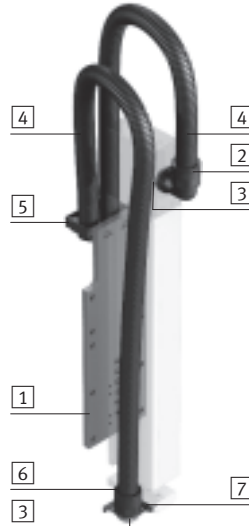
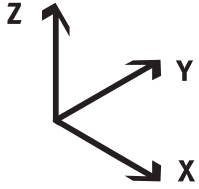
2) Length depends on the stroke of the drive, 2 conduits are required with an intermediate position.

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.

Three-dimensional gantries

Z modules

Mono/Duo system
Linear modules HMP



| Bill of materials | | | | | | |
|-------------------|-------------------|----------|---------------|----------|---------------|-----------------|
| Type | HMBSZ-HMP-4 | | HMBSZ-HMP-5 | | HMBSZ-HMP-6 | → Page/Internet |
| For drives | HMP-16 | | HMP-20 | | HMP-25 | |
| System type | Mono 40 Duo 25 | | Duo 25 | | Duo 40 | |
| Position | Quantity | Part No. | Type | Part No. | Type | |
| 1 | 1 | 539 374 | HMVZ-3 | 539 374 | HMVZ-3 | 82 |
| 2 | 1 | 177 577 | MKRL-23-PG-21 | 177 578 | MKRL-29-PG-29 | 97 |
| 3 | 2 | 177 599 | MKM-PG-21 | 177 600 | MKM-PG-29 | 101 |
| 4 | 1 ¹⁾ | 177 567 | MKR-23-PG-21 | 177 568 | MKR-29-PG-29 | 94 |
| 5 | 2 | 192 290 | MKRS-23-B | 192 291 | MKRS-29-B | 101 |
| 6 | 1 | 177 572 | MKRV-23-PG-21 | 177 573 | MKRV-29-PG-29 | 96 |
| 7 | 1 | 193 124 | HMZAS-PG-21 | 177 603 | HMZAS-PG-29 | 102 |

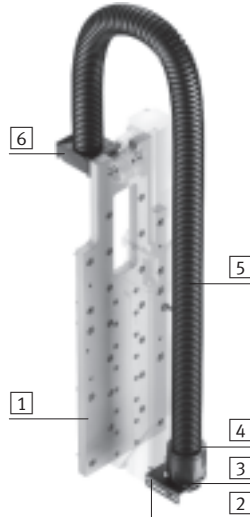
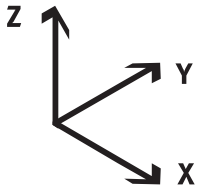
1) Length depends on the stroke of the drive

Three-dimensional gantries

Z modules

Mono/Duo system

Cantilever axes EGSA



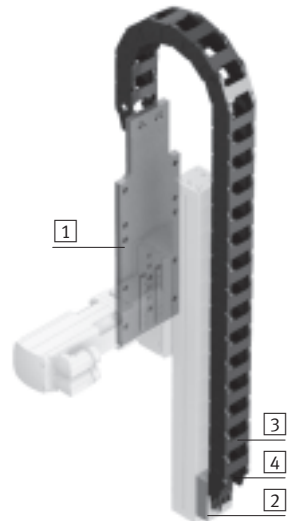
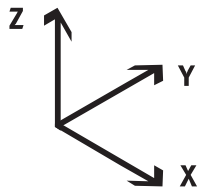
| Bill of materials | | | | | | |
|-------------------|-----------------|--------------|---------------|-----------------|---------------|-----|
| Type | | HMBSZ-EGSA-2 | | → Page/Internet | | |
| For drives | | EGSA-50 | | | | |
| System type | | Mono 25 | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | |
| 1 | 1 | 560 021 | HMVZ-7 | 560 021 | HMVZ-7 | 82 |
| 2 | 1 | 193 124 | HMZAS-PG-21 | 193 124 | HMZAS-PG-21 | 102 |
| 3 | 2 | 177 599 | MKM-PG-21 | 177 599 | MKM-PG-21 | 101 |
| 4 | 1 | 177 572 | MKRV-23-PG-21 | 177 572 | MKRV-23-PG-21 | 96 |
| 5 | 1 ¹⁾ | 177 567 | MKR-23-PG-21 | 177 567 | MKR-23-PG-21 | 94 |
| 6 | 1 | 192 290 | MKRS-23-B | 192 290 | MKRS-23-B | 101 |

1) Length depends on the stroke of the drive

Three-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 | | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | → Page/Internet | |
| 1 | 1 | 539 374 | HMVZ-3 | 539 375 | HMVZ-4 | 539 377 | HMVZ-6 | 82 | |
| 2 | 1 | 539 370 | HMIZF-E03-DA18 | 539 371 | HMIZF-E03-DA25 | 539 371 | HMIZF-E03-DA25 | 108 | |
| 3 | 1 ¹⁾ | IGUS E2 medium 240.03.075.0 and 211 or ENERGY CHAIN MC 0320.40-01-77 and TS O/n ₁ 2 | | | | | | | - |
| 4 | 1 | IGUS E2 medium 2030.12.PZB or ENERGY CHAIN MC FA/MA | | | | | | | - |

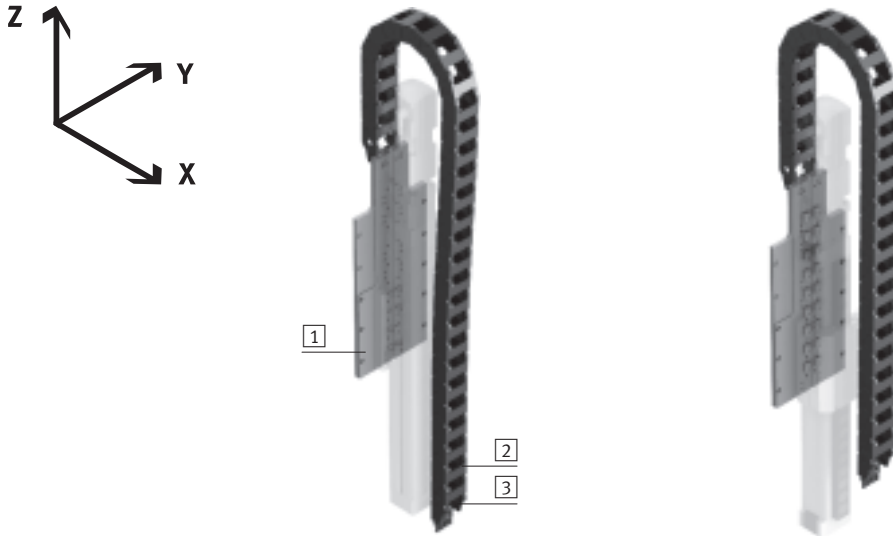
1) Length depends on the stroke of the drive

Three-dimensional gantries

Z modules

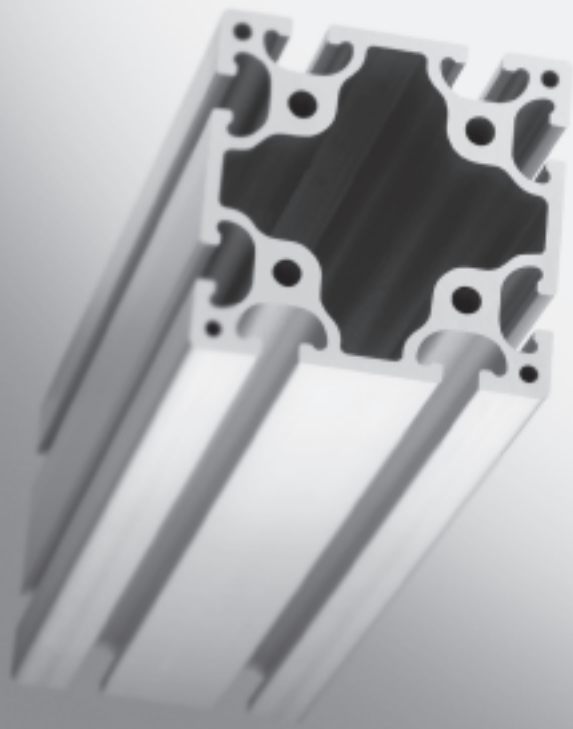
Mono/Duo system

Toothed belt axes DGE



| Bill of materials | | | | | | | | |
|-------------------|-------------------|---|-------------|----------|-------------|----------|-----------------|----|
| Type | HMBSZ-DGE-1 | | HMBSZ-DGE-2 | | HMBSZ-DGE-3 | | → Page/Internet | |
| For drives | DGE-25-SP | | DGE-40-SP | | DGE-40-SP | | | |
| System type | Mono 40 Duo 25 | | Duo 25 | | Duo 40 | | | |
| Position | Quantity | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 1 | 539 374 | HMVZ-3 | 539 375 | HMVZ-4 | 539 377 | HMVZ-6 | 82 |
| 2 | 1 ¹⁾ | IGUS E2 medium 240.03.075.0 and 211 or ENERGY CHAIN MC 0320.40-01-77 and TS O/n _T 2 | | | | | - | |
| 3 | 1 | IGUS E2 medium 2030.12.PZB or ENERGY CHAIN MC FA/MA | | | | | - | |

1) Length depends on the stroke of the drive

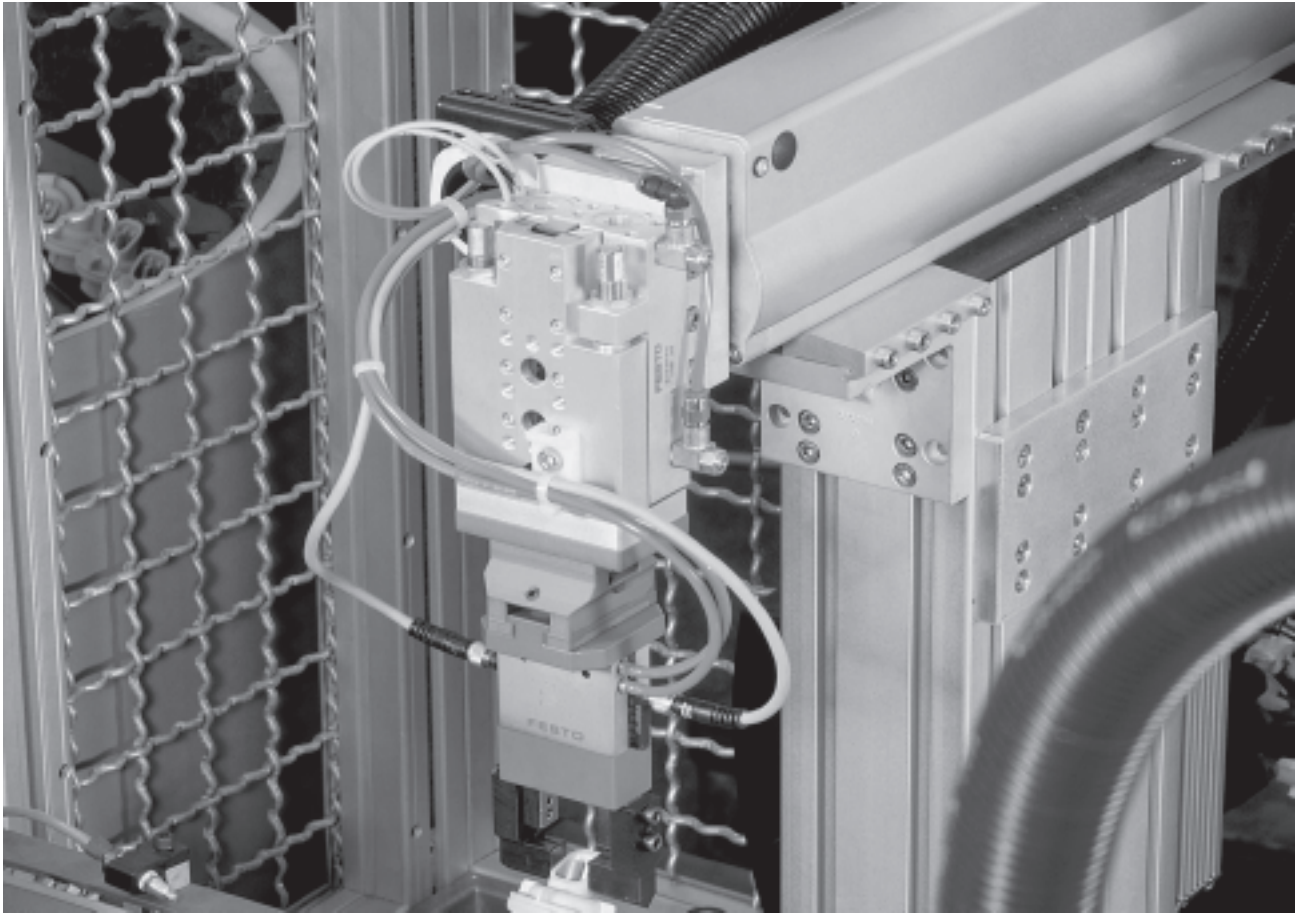


- Wide range of variants
- Robust
- Functional
- Flexible

Basic components

Key features

FESTO



Basic kits

Profile column HMBS

With slot width of 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.

Connecting kit HMBSW

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

Basic kit HMBF-DB

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

Connecting kit HMBWS

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

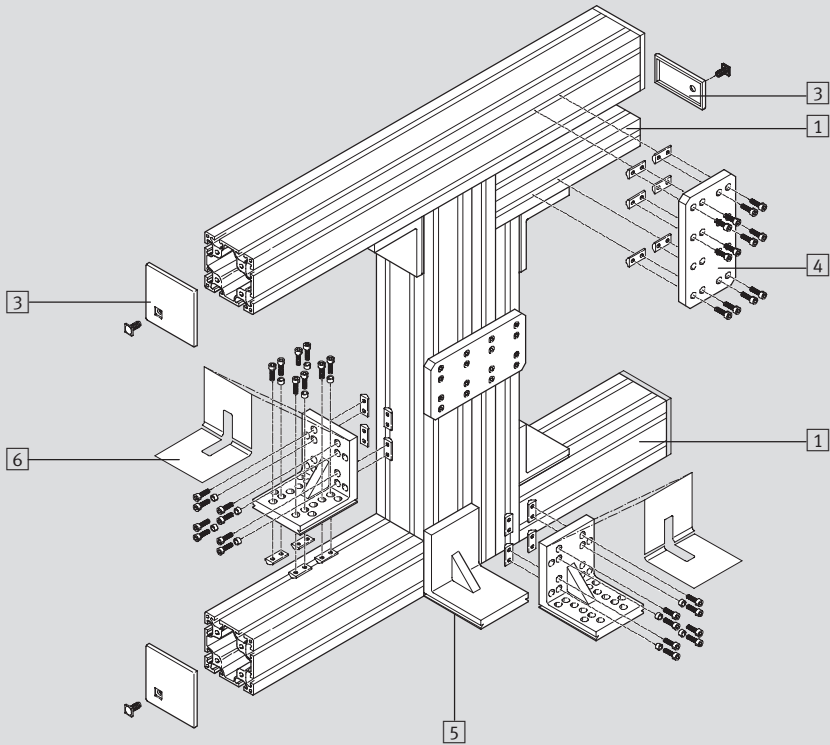
Connecting kit HMBV-ND

Interface for connecting basic components to Festo drives.

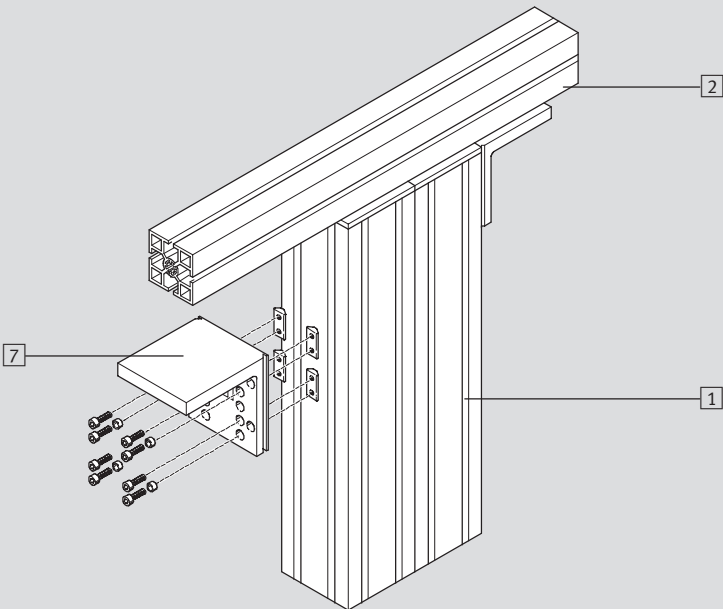
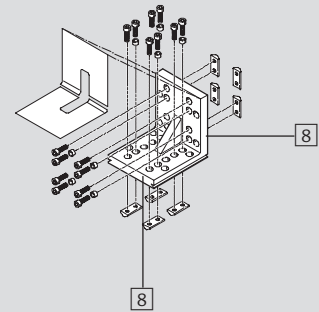
Basic components

Key features

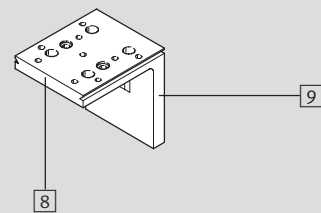
An optimum concept with multiple functionalities



6 Connecting kit HMBSW



7 Connecting kit HMBWS



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

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

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

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

Basic components

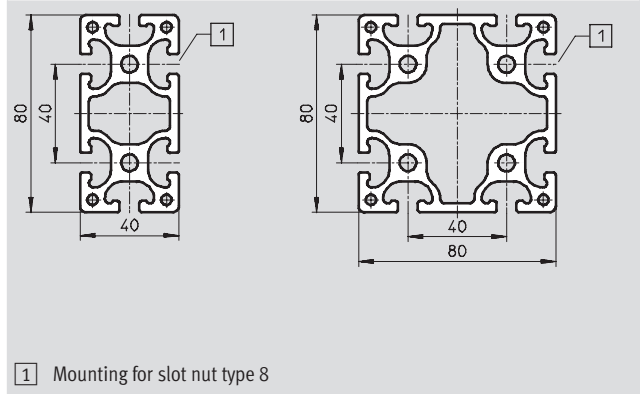
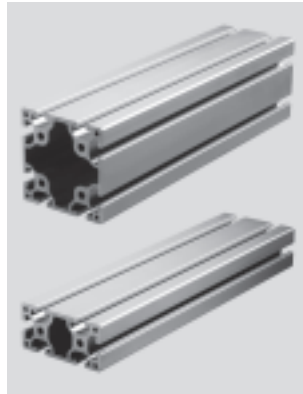
Technical data



Profile column HMBS

Scope of delivery:
1 support column

Material:
Aluminium
Free of copper, PTFE and silicone



1 Mounting for slot nut type 8

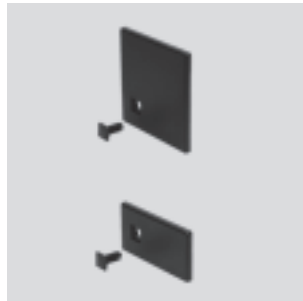
| Ordering data | | | | |
|--|-------------------|----------|------------|------------------|
| Dimensions | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| 80x40 | 2 | 175 964 | HMBS-80/40 | 1 |
| 80x80 | | 175 958 | HMBS-80/80 | 1 |
| Accessories (to be ordered separately) | | | | |
| Slot nuts | 2 | 186 567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

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

Cover cap HMBSA

Scope of delivery:
1 cover, 1 plug

Material:
Polyacetal
Free of copper, PTFE and silicone



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

Basic components

Technical data

Connecting kit HMBSV

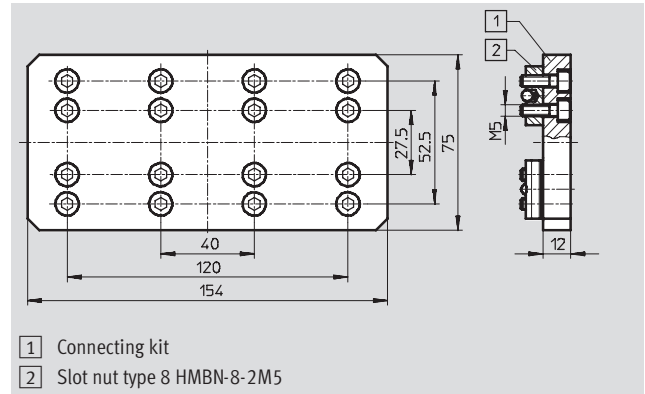
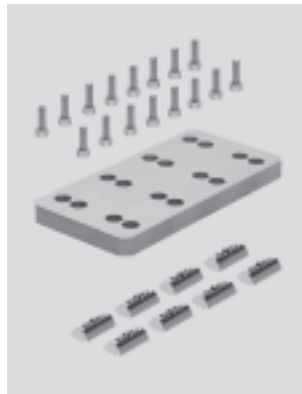
Scope of delivery:

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

Connecting kit HMBSW

Scope of delivery:

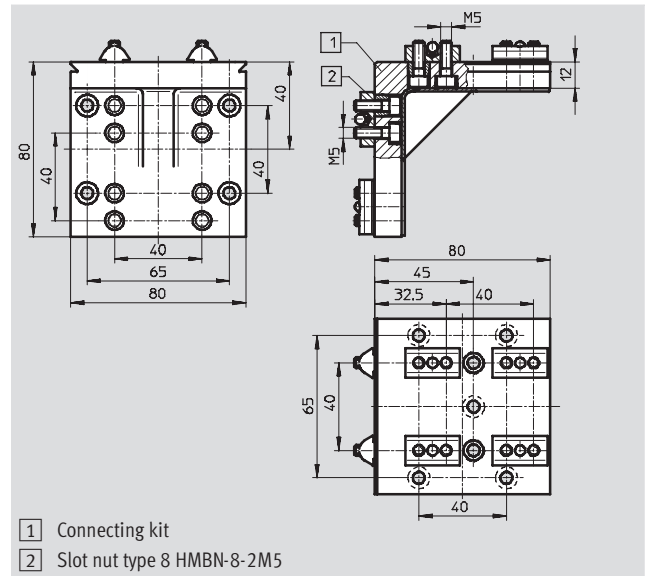
1 bracket, 16 screws, 8 slot nuts,
8 spacer rings, 2 cover caps

Material:

Aluminium

Cover cap: Polyacetal

Free of copper, PTFE and silicone



| Ordering data | | | | |
|---------------------------|-------------------|----------------|-------------------|------------------|
| | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| Connecting 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 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
- Packaging unit quantity

Basic components

Technical data



Basic kit HMBF-DB

Scope of delivery:

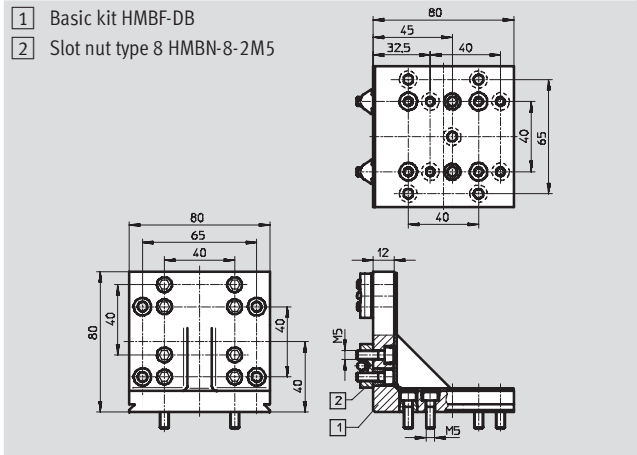
1 bracket, 16 screws, 4 slot nuts,
8 spacer rings, 2 cover caps

Material:

Aluminium

Cover cap: Polyacetal

Free of copper, PTFE and silicone



| Ordering data | | | | |
|---------------------------|-------------------|----------|------------|------------------|
| | CRC ¹⁾ | Part No. | Type | PJ ²⁾ |
| Basic 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 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
- 2) Packaging unit quantity

Connecting kit HMBWS

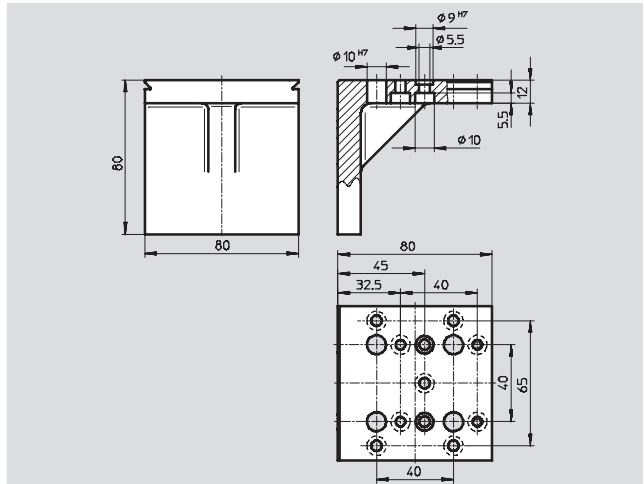
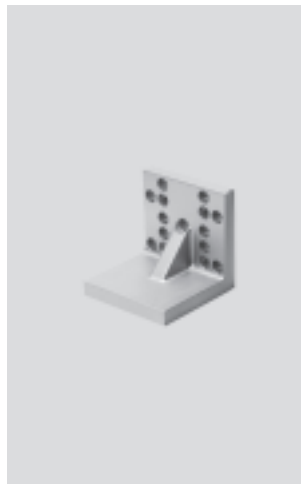
Scope of delivery:

1 bracket

Material:

Aluminium

Free of copper, PTFE and silicone



| Ordering data | | | | |
|---------------------------|-------------------|----------|------------|------------------|
| | CRC ¹⁾ | Part No. | Type | PJ ²⁾ |
| Connecting kit 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 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
- 2) Packaging unit quantity

Basic components

Technical data

Connecting kit HMBV-ND

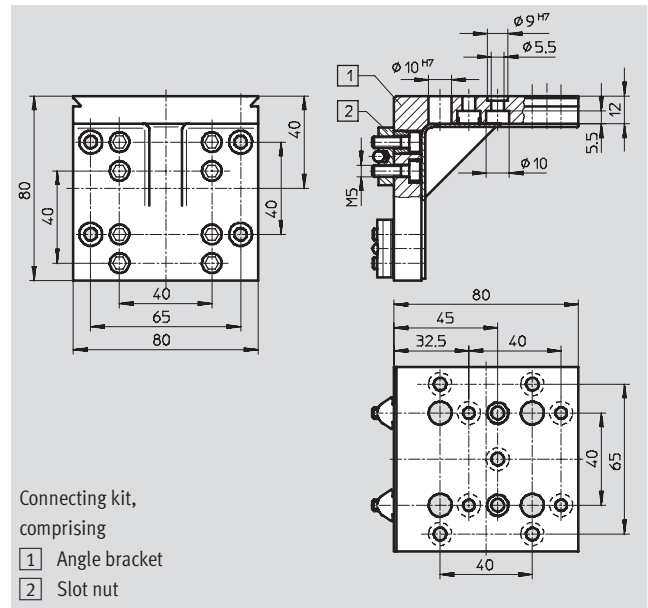
- for HMP, HMPL
- for SLT with HMBK-WS and HMSV-34 ... 37

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 | PU ²⁾ |
| Connecting kit | 2 | 175 967 | HMBV-ND | 1 |
| Accessories (for reorder) | | | | |
| Slot nuts | 2 | 186 567 | HMBN-8-2M5 | 10 |
| Spacer rings | | 186 563 | HMBRD | 10 |
| Screws | | M5x16 | | - |

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

2) Packaging unit quantity

Basic components

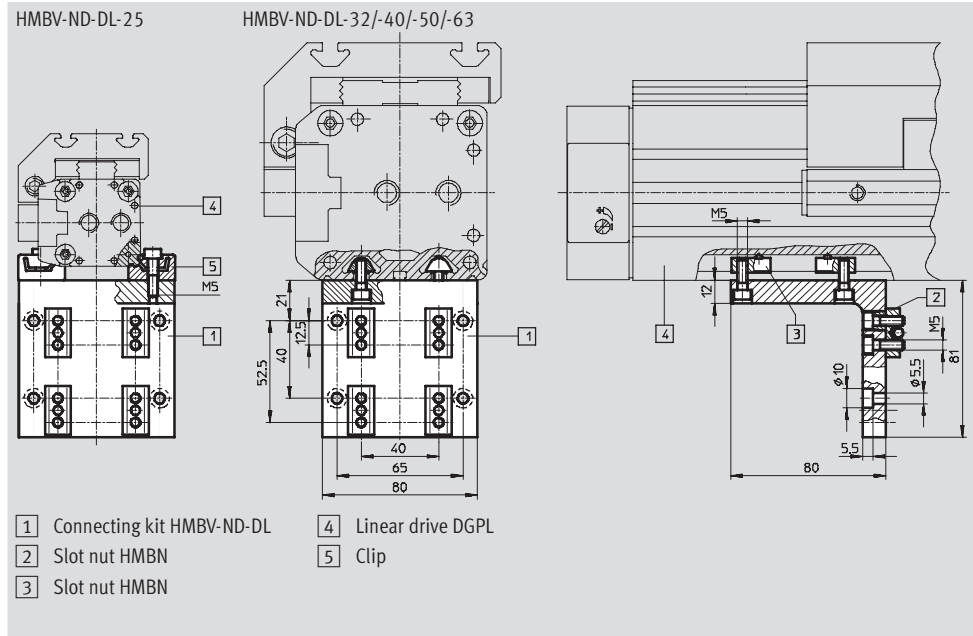
Technical data



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



| 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 |

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

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

Basic components

Technical data

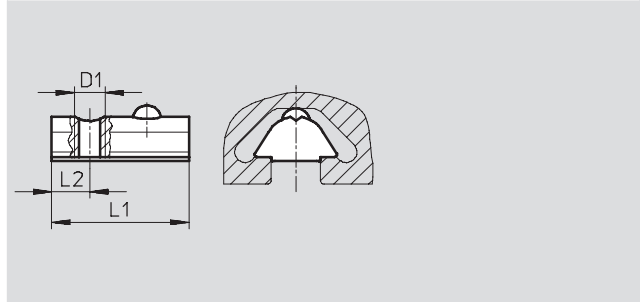
| Combination options – Slot nuts/drives, profile column | | | | | |
|--|-----------|-----------|------------|-----------|------------|
| Drives | | Slot nuts | | | |
| | | HMBN-5-M5 | HMBN-5-2M5 | HMBN-8-M5 | HMBN-8-2M5 |
| Linear module HMP | | | | | |
| ∅ | 16 ... 32 | - | ■ | - | - |
| Linear drive 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

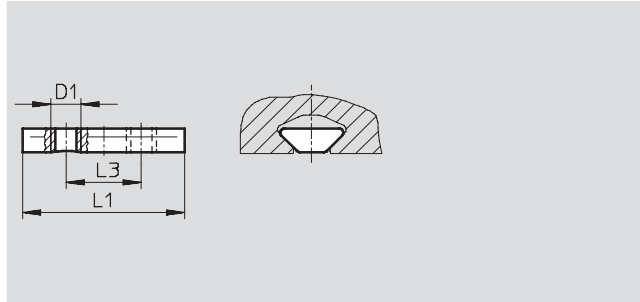
Slot nut HMBN-5-M5

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



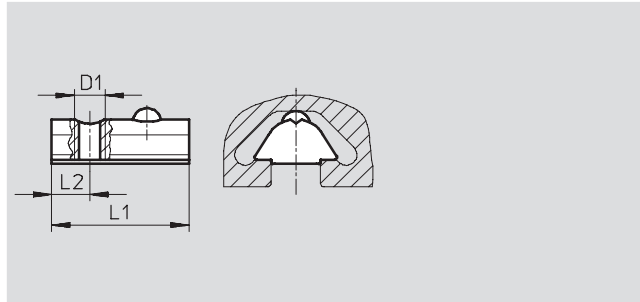
Slot nut HMBN-5-2M5

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



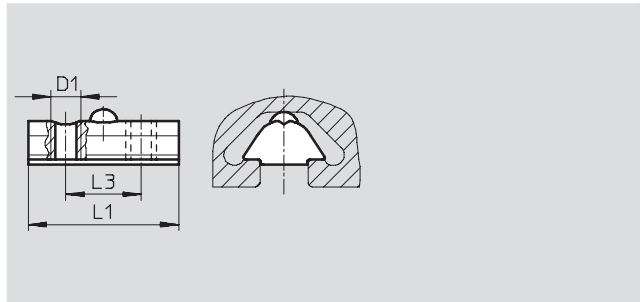
Slot nut HMBN-8-M5

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 | PU 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 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

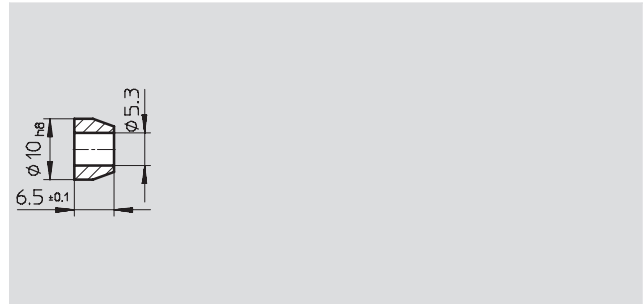
2) Packaging unit quantity

Basic components

Technical data

Spacer ring HMBRD

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

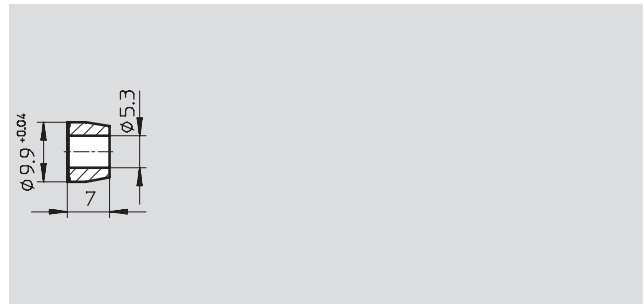


| Ordering data | | | |
|-------------------|----------|-------|------------------|
| CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| 2 | 186 563 | HMBRD | 10 |

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

Cutting ring HMBRS

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



| Ordering data | | | |
|-------------------|----------|-------|------------------|
| CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| 2 | 186 564 | HMBRS | 10 |

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

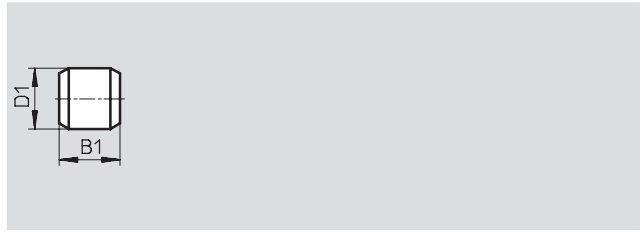
Basic components

Technical data

FESTO

Centring pin ZBS

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

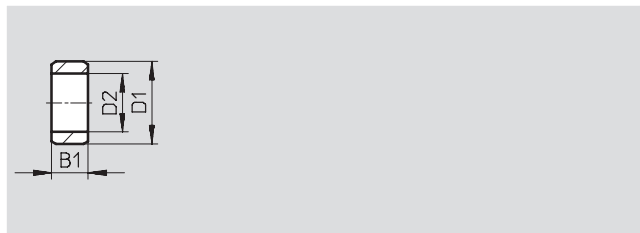
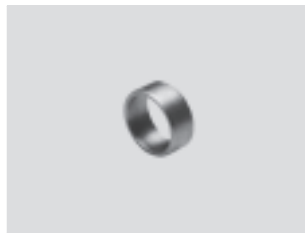


| Dimensions and ordering data | | | | | |
|------------------------------|---------|-------------------|----------------|--------------|------------------|
| B1 | D1 | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| -0.2 | ∅ h8 | | | | |
| 5 | 2 | 2 | 525 273 | ZBS-2 | 10 |
| 5 | 5 | 2 | 150 928 | ZBS-5 | 10 |

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

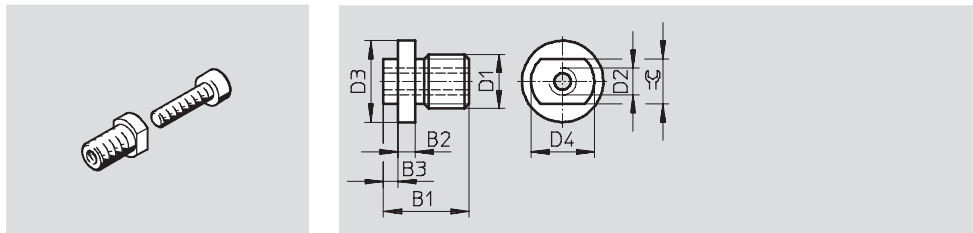
Basic components

Technical data



Connecting sleeve ZBV-M...

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



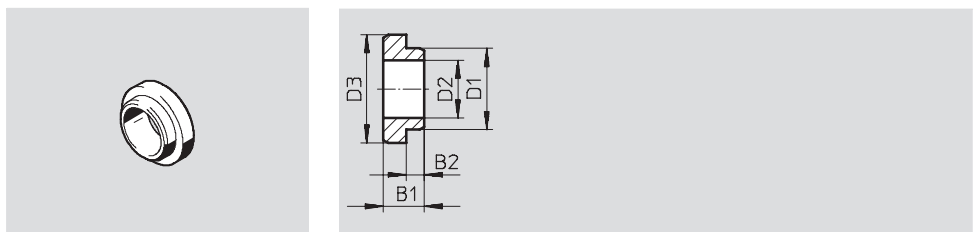
| Dimensions and ordering data | | | | | | | |
|------------------------------|---------------------|-------------------|----|------|---------|---------|-----|
| B1 | B2 | B3 | D1 | D2 | D3 | D4 | ⊖ |
| 8.7 | 1.4 ^{+0.1} | 1.3±0.05 | M4 | M2.5 | ∅ h7 | ∅ h7 | 4 |
| 11 | - | 3 ^{+0.1} | M5 | M3 | - |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

| CRC ¹⁾ | Part No. | Type | PJ ²⁾ |
|-------------------|----------|----------|------------------|
| 2 | 548 802 | ZBV-M4-7 | 3 |
| 2 | 548 803 | ZBV-M5-7 | 3 |
| 2 | 548 804 | ZBV-M6-9 | 3 |

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

Connecting sleeve ZBV

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



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

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

Basic components

Technical data

FESTO

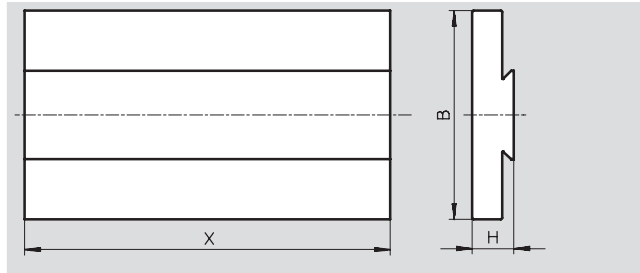
Adapter plate HMAV-...-X

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 when ordering.

2) Corrosion resistance class 2 as per Festo standard 940 070

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

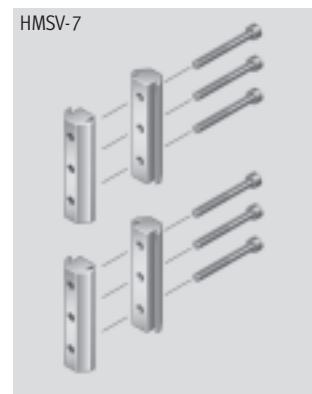
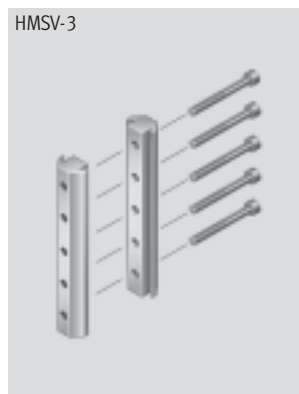
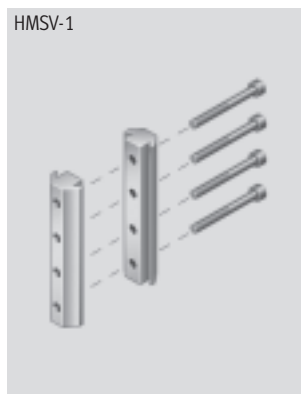
3) Packaging unit quantity

Adapter kit HMSV

Material:

Anodised aluminium

Free of copper, PTFE and silicone



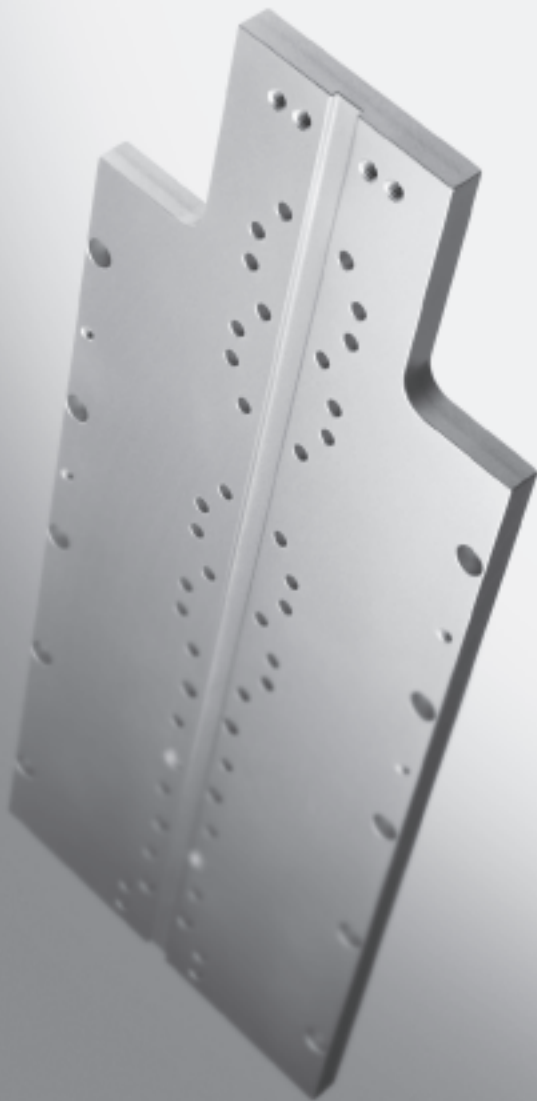
Dimensions and ordering data

| 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 as per Festo standard 940 070

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

2) Packaging unit quantity

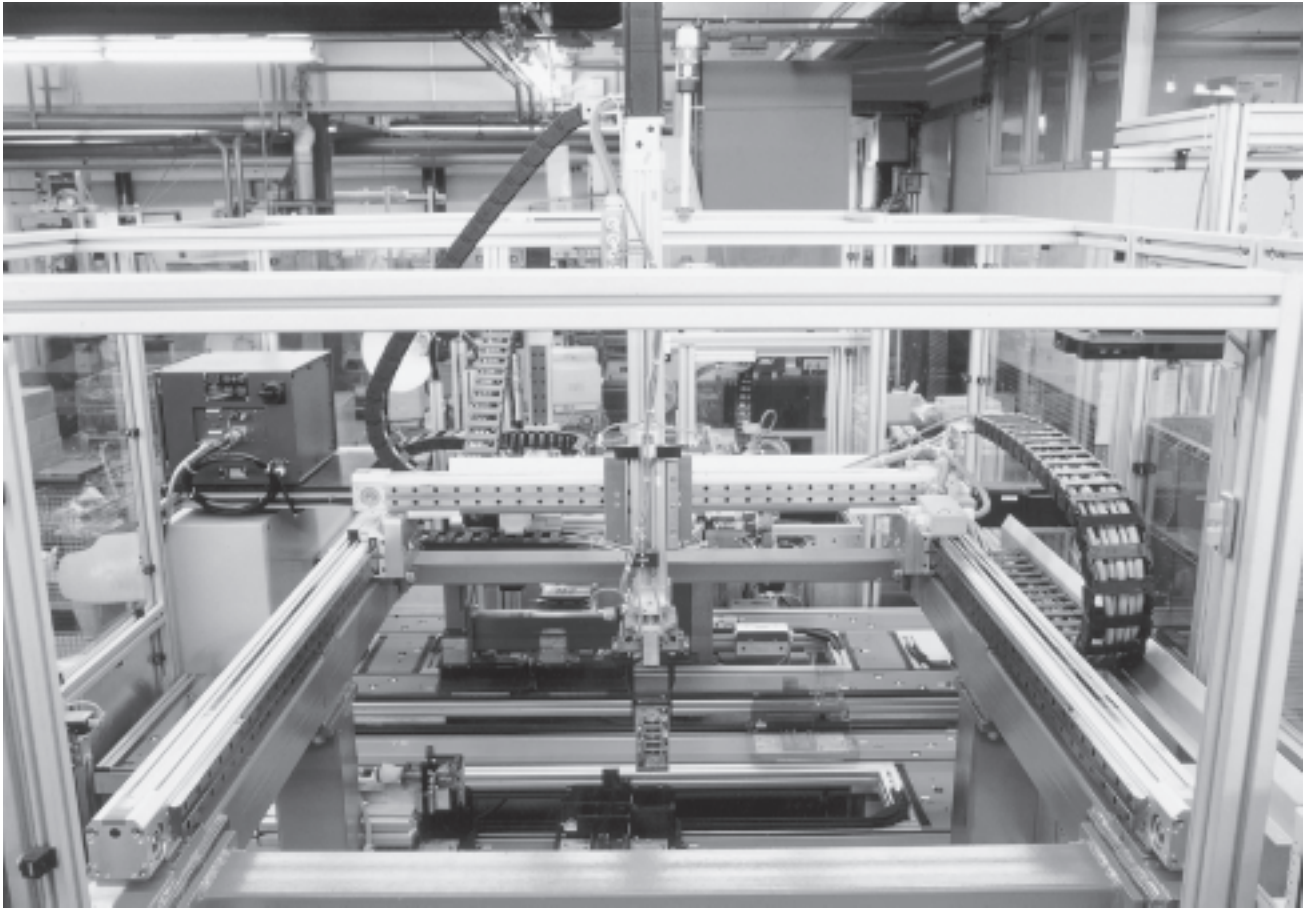


- Modular
- Functional
- Flexible

Connecting components

Key features

FESTO



Connecting kits

Basic kit

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

Adapter kit

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

Connecting kit

For connecting drives and basic components.

Reinforcing kit

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

Mounting kit

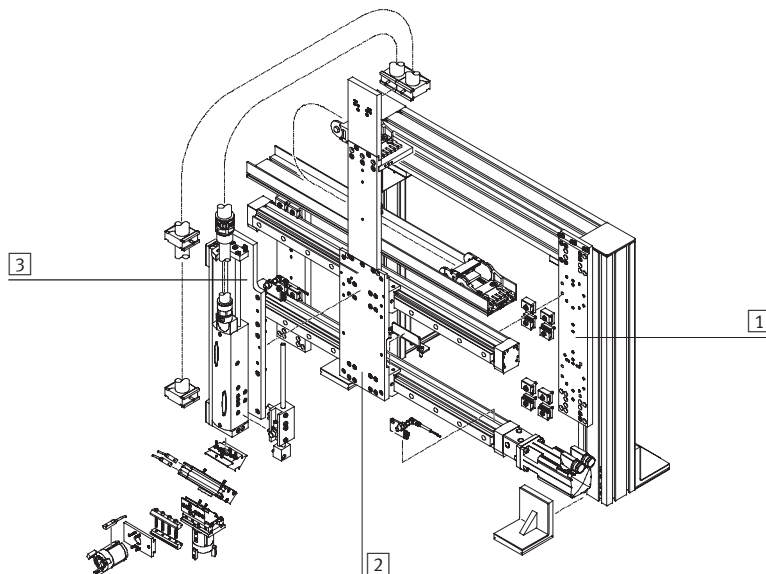
For mounting accessories such as controllers on multi-axis systems.

Connecting components

Key features

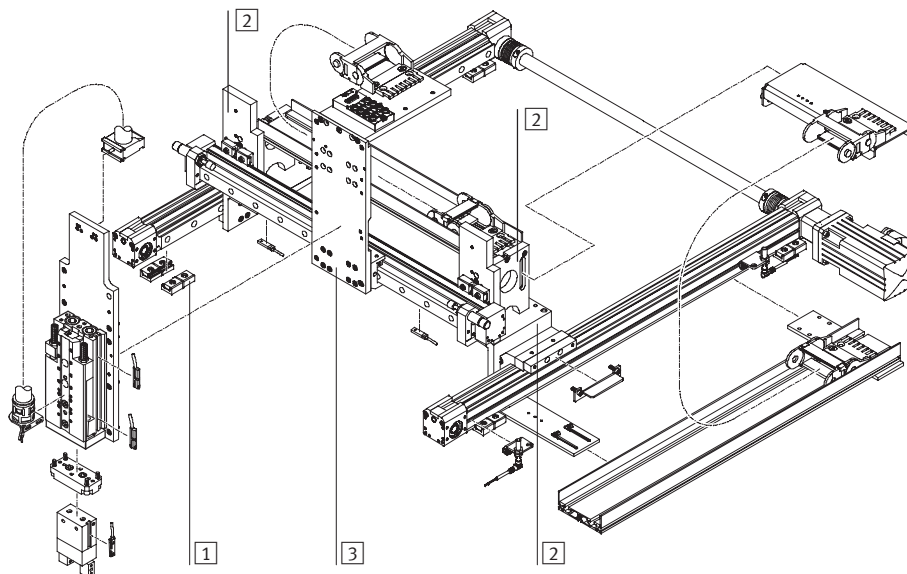
Linear gantry

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



Three-dimensional gantry


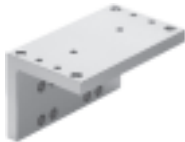






- 1 Components for mounting basic axes
- 2 Components for lateral mounting of an axis (adapter kit, reinforcing kit, basic kit)
- 3 Components for mounting the drives along the Z-axis in gantry designs



Connecting components







Product range overview

FESTO

| Version | Brief description | → Page/ Internet | Version | Brief description | → Page/ Internet |
|---|--|---------------------|--|--|---------------------|
| Connecting kit HMBK-DB | | | Adapter kit HMVW-DL | | |
|  | <ul style="list-style-type: none"> • For Pick & Place • For direct mounting of linear modules HMP and HMPL | 74 |  | <ul style="list-style-type: none"> • For three-dimensional gantries • For connecting X-axes and Y-axes • Mounting interface for reinforcing kit HMVV and basic kit HMVM • Mounting accessories included in scope of delivery | 77 |
| Connecting kit HMBK-ND | | | Adapter kit HMVS-RF | | |
|  | <ul style="list-style-type: none"> • For Pick & Place • For direct mounting of linear modules HMP | 74 |  | <ul style="list-style-type: none"> • For three-dimensional gantries • For connecting X-axes and Y-axes • For toothed belt axis DGE-RF with roller guide • Mounting interface for reinforcing kit HMVV and basic kit HMVM • Mounting accessories included in scope of delivery | 78 |
| Connecting kit HMBK-WS | | | Reinforcing kit HMVV-RP/FP | | |
|  | <ul style="list-style-type: none"> • For Pick & Place • For dovetail mounting of linear modules HMP and HMPL and mini slides SLT | 75 |  | <ul style="list-style-type: none"> • For three-dimensional gantries • Mounting interface for basic kit HMVM/HMVD, installation components, etc. • Mounting accessories included in scope of delivery | 79 |
| Connecting kit HMVY | | | Basic kit HMVM-LP, HMVD-LP | | |
|  | <ul style="list-style-type: none"> • For Pick & Place • For connecting basic components and drives • Mounting accessories included in scope of delivery | 76 |  | <ul style="list-style-type: none"> • For linear gantries • For Y-axis • For Mono and Duo systems • Mounting interface for profiles, drives and displacement encoders • Mounting accessories included in scope of delivery | 80 |

Connecting components

Product range overview

| Version | Brief description | → Page/ Internet | Version | Brief description | → Page/ Internet |
|---|--|---------------------|---|---|---------------------|
| Basic kit HMVM-RP/FP, HMVD-RP/FP | | | Connecting plate HMVO-RF | | |
|  | <ul style="list-style-type: none"> • For three-dimensional gantries • For Y-axis • For Mono and Duo systems • Mounting interface for drives • Mounting accessories included in scope of delivery | 81 |  | <ul style="list-style-type: none"> • For linear gantries • Compensating component for toothed belt axis DGE-RF to compensate for the difference in height with the axes DGE-ZR-KF and DGE-SP-KF | 85 |
| Basic kit HMVZ | | | Connecting plate HMVO-POT | | |
|  | <ul style="list-style-type: none"> • For linear and three-dimensional gantries • For Z-axis • For Mono and Duo systems • Mounting interface for drives, installation components, etc. • Mounting accessories and earthing kit included in scope of delivery | 82 |  | <ul style="list-style-type: none"> • For linear gantries • Compensating component for displacement encoder MLO-POT-TLF to compensate for the difference in height with the linear drive DGPL with MUP | 85 |
| Adapter kit HMVS-DL | | | Mounting kit HMVW-SPC | | |
|  | <ul style="list-style-type: none"> • For linear and three-dimensional gantries • For Mono and Duo systems • Mounting interface for basic kit HMVZ • Mounting accessories and earthing kits included in scope of delivery | 84 |  | <ul style="list-style-type: none"> • For mounting the axis interface on the end cap of the drive • Mounting accessories included in scope of delivery | 86 |

Connecting components

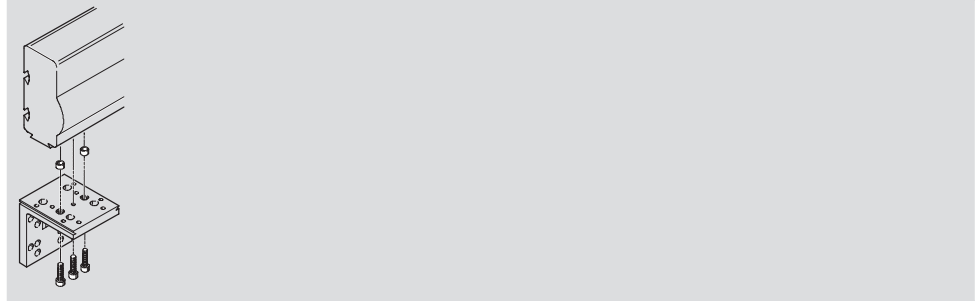
Technical data

Connecting kit
HMBK-DB

- For Pick & Place

- For direct mounting of linear modules HMP and HMPL

Material:
Steel
Free of copper, PTFE and silicone



| Technical data and ordering codes | | | |
|-----------------------------------|------------|----------|---------|
| CRC ¹⁾ | Weight [g] | Part No. | Type |
| 2 | 15 | 175 973 | HMBK-DB |

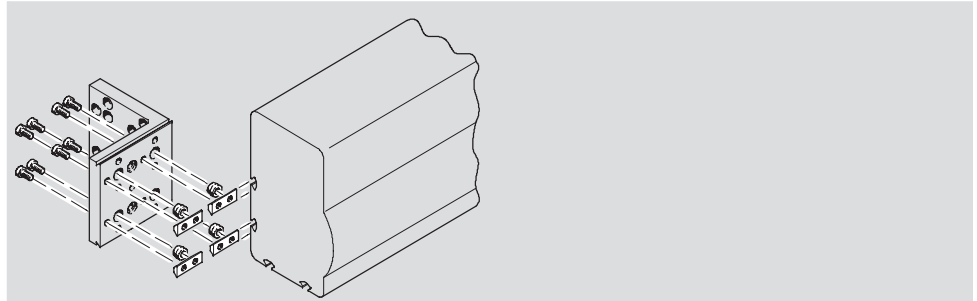
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Connecting kit
HMBK-ND

- For Pick & Place

- For direct mounting of linear modules HMP

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



| Technical data and ordering codes | | | |
|-----------------------------------|------------|----------|---------|
| CRC ¹⁾ | Weight [g] | Part No. | Type |
| 2 | 62 | 175 970 | HMBK-ND |

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

Connecting components

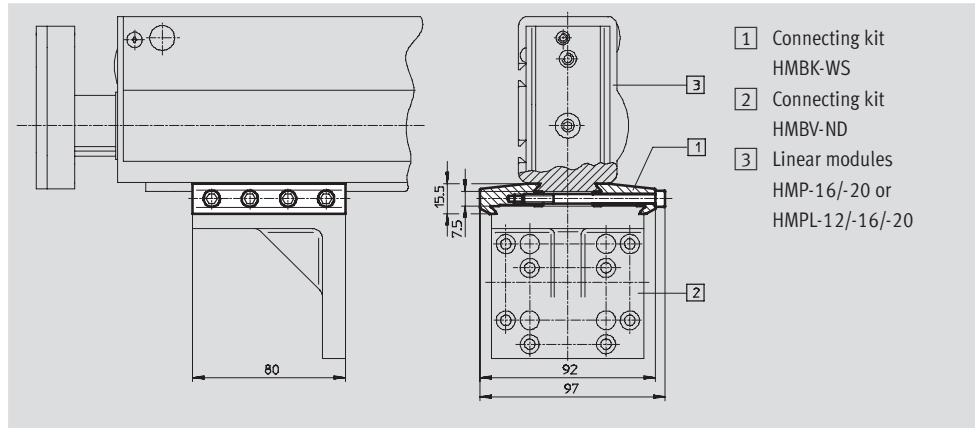
Technical data

**Connecting kit
HMBK-WS**

- For Pick & Place

- For dovetail mounting of linear modules HMP and HMPL and mini slides SLT

Material:
Anodised aluminium
Free of copper, PTFE and silicone



| Technical data and ordering codes | | | |
|-----------------------------------|------------|----------|---------|
| CRC ¹⁾ | Weight [g] | Part No. | Type |
| 2 | 453 | 175 975 | HMBK-WS |

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

Connecting components

Technical data

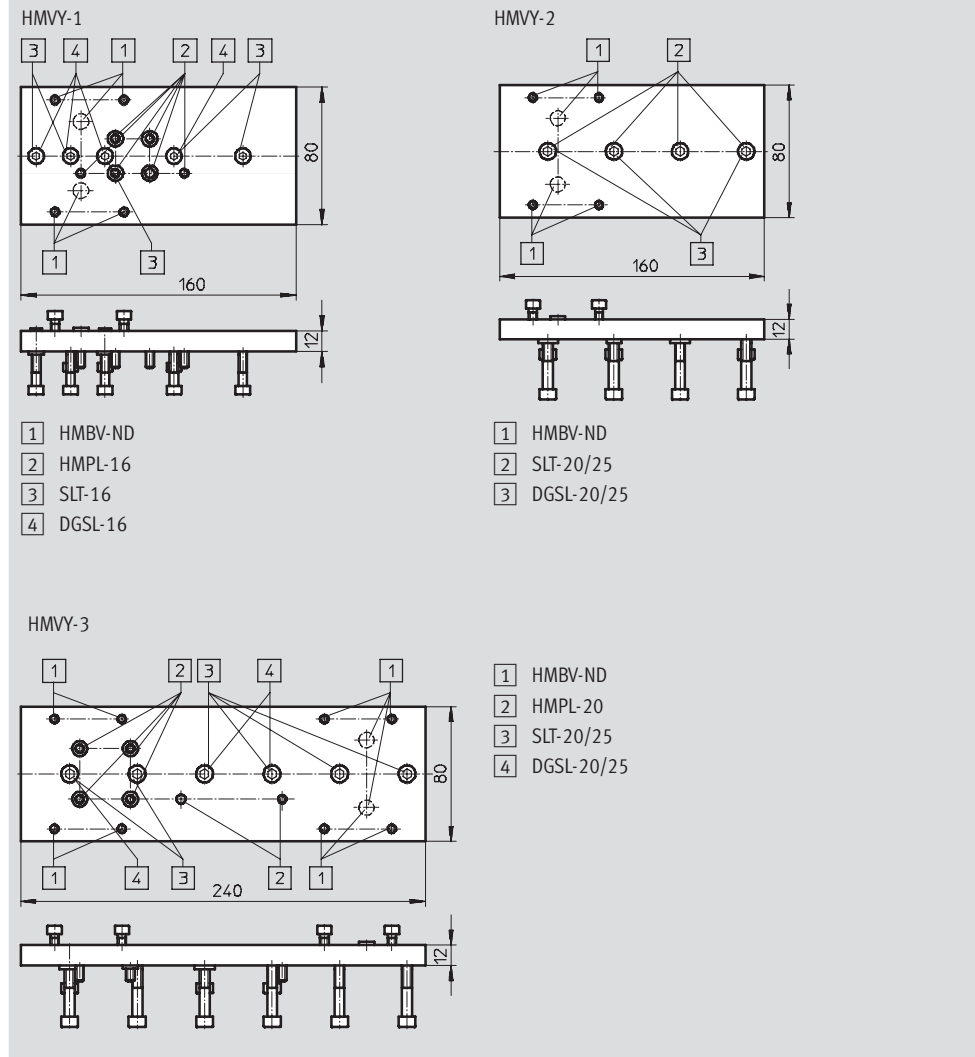


Connecting kit
HMVY

• For Pick & Place

- For connecting basic components and drives
- Mounting accessories included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|--------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 410 | 539 968 | HMVY-1 |
| | 420 | 539 969 | HMVY-2 |
| | 620 | 539 970 | HMVY-3 |

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

Connecting components

Technical data

**Adapter kit
HMVW-DL**

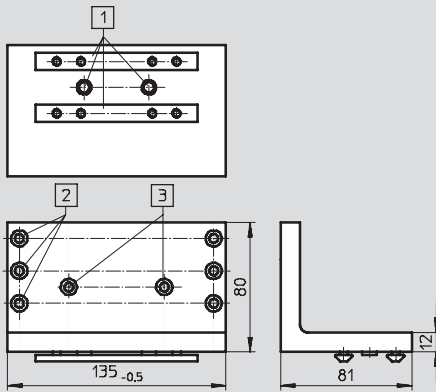
- For three-dimensional gantries
- For connecting X-axes and Y-axes

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone

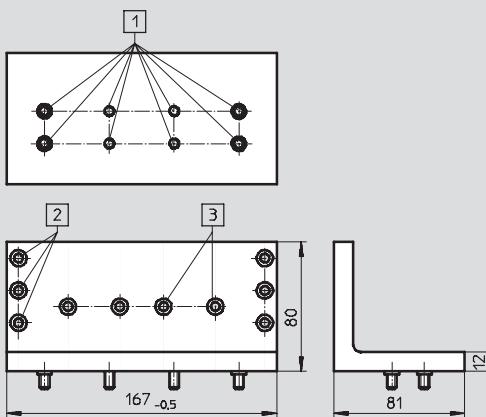


HMVW-DL25



- 1 DGE-25-ZR-KF
- 2 HMVM-RP/FP-DL25/40
HMVD-RP/FP-DL25/40
- 3 HMVV-RP/FP

HMVW-DL40



- 1 DGE-40-ZR-KF
- 2 HMVM-RP/FP-DL25/40
HMVD-RP/FP-DL25/40
- 3 HMVV-RP/FP

| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|-----------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 640 | 539 651 | HMVW-DL25 |
| | 800 | 540 325 | HMVW-DL40 |

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

Connecting components

Technical data



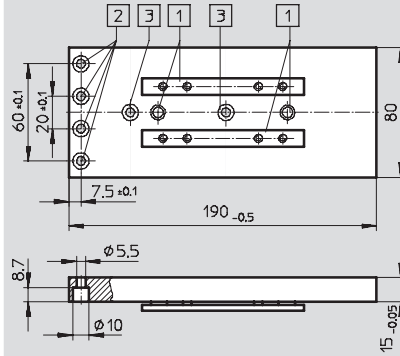
Adapter kit HMVS-RF

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone

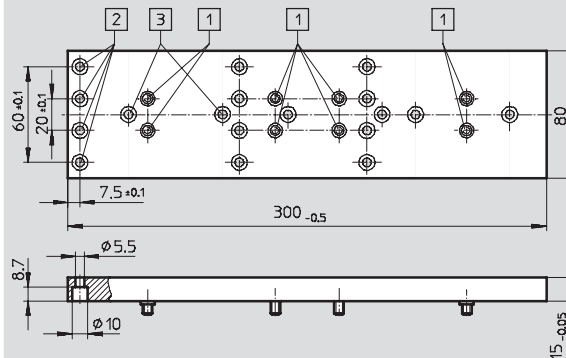


HMVS-RF-25



- 1 DGE-25-ZR-RF
- 2 HMVM-RP/FP-DL25/40
HMVD-RP/FP-DL25/40
- 3 HMVV-RP/FP

HMVS-RF-40



- 1 DGE-40-ZR-RF
- 2 HMVM-RP/FP-DL25/40
HMVD-RP/FP-DL25/40
- 3 HMVV-RP/FP

Technical data and ordering codes

| CRC ¹⁾ | Weight | Part No. | Type |
|-------------------|--------|----------|-----------|
| | [g] | | |
| 2 | 600 | 539 652 | HMVS-RF25 |
| | 930 | 539 653 | HMVS-RF40 |

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

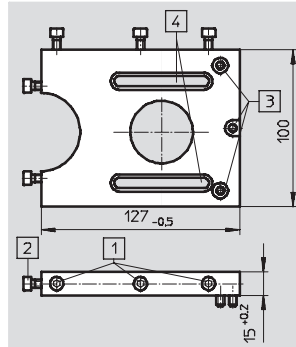
Connecting components

Technical data

Reinforcing kit HMVV-RP/FP

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 HMVM-RP/FP-DL25/40
HMVD-RP/FP-DL25/40
- 2 HMVS-RF25/40
HMVW-DL25/40
- 3 HMIA-E07
- 4 HMIXF-RP/FP

| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|------------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 400 | 539 657 | HMVV-RP/FP |

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

Connecting components

Technical data



Basic kit
HMVM-LP
HMVD-LP

- For linear gantries
- For Y-axis
- For Mono and Duo systems
- Mounting interface for profiles, drives and displacement encoders
- Mounting accessories included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



HMVM-LP-DL-25/40

HMVD-LP-DL-25/40

- 1 MUP-18/25
(with DGE-25-...-RF, additionally HMVO-RF25)
- 2 MUC-25
- 3 MUC-40
- 4 DG...-40-...
- 5 HMIA-E05
- 6 MLO-POT-...-TLF
(with DGPL-25-...-KF, additionally HMVO-POT)

- 1 MUP-18/25
(with DGE-25-...-RF, additionally HMVO-RF25)
- 2 MUC-25
- 3 MUC-40
- 4 DG...-40-...
- 5 HMIA-E05
- 6 MLO-POT-...-TLF
(with DGPL-25-...-KF, additionally HMVO-POT)

| Technical data and ordering codes | | | | |
|-----------------------------------|-------------------|------------|----------|------------------|
| For system type | CRC ¹⁾ | Weight [g] | Part No. | Type |
| Mono | 2 | 830 | 539 972 | HMVM-LP-DL-25/40 |
| Duo | | 1,320 | 539 971 | HMVD-LP-DL-25/40 |

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

Connecting components

Technical data

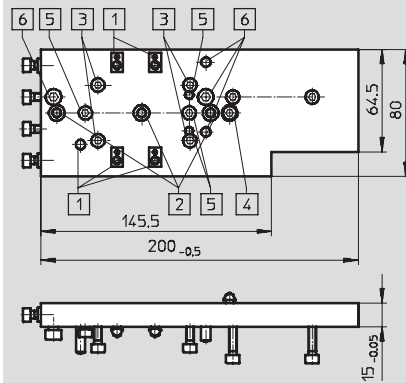
Basic kit
HMVM-RP/FP
HMVD-RP/FP

- For three-dimensional gantries
- For Y-axis
- For Mono and Duo systems
- Mounting interface for drives
- Mounting accessories included in scope of delivery

Material:
 Anodised aluminium
 Free of copper, PTFE and silicone

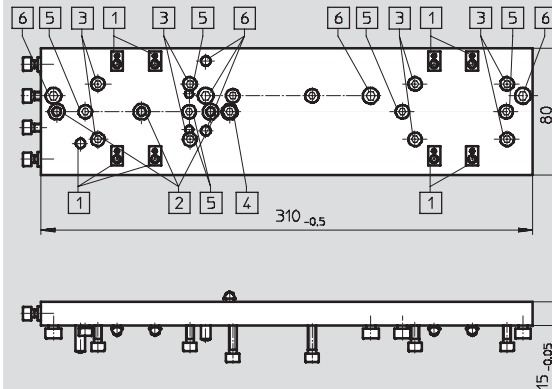


HMVM-RP/FP-DL-25/40



- 1 DG...-40
- 2 HMVV-RP/FP
- 3 MUP-18/25
- 4 HMIA-E07
- 5 MUC-25
- 6 MUC-40

HMVD-RP/FP-DL-25/40



- 1 DG...-40
- 2 HMVV-RP/FP
- 3 MUP-18/25
- 4 HMIA-E07
- 5 MUC-25
- 6 MUC-40

Technical data and ordering codes

| For system type | CRC ¹⁾ | Weight [g] | Part No. | Type |
|-----------------|-------------------|---------------|----------|---------------------|
| Mono | 2 | 600 | 539 656 | HMVM-RP/FP-DL-25/40 |
| Duo | | 1,000 | 539 655 | HMVD-RP/FP-DL-25/40 |

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

Connecting components

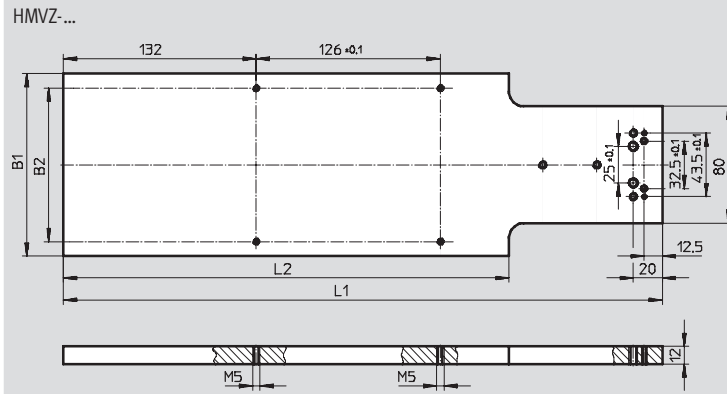
Technical data



Basic kit HMVZ

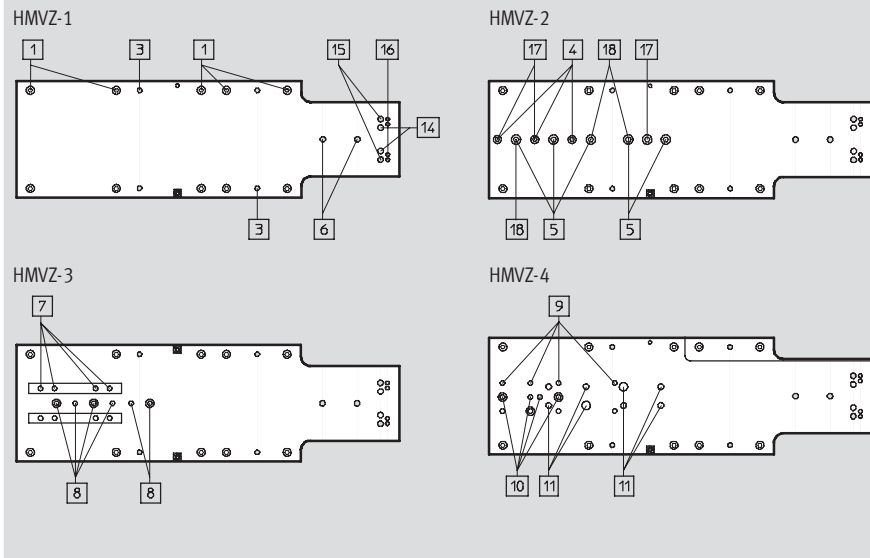
- For linear and three-dimensional gantries
- For Z-axis
- For Mono and Duo systems
- Mounting interface for drives, installation components, etc.

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- Mounting accessories and earthing kit included in scope of delivery

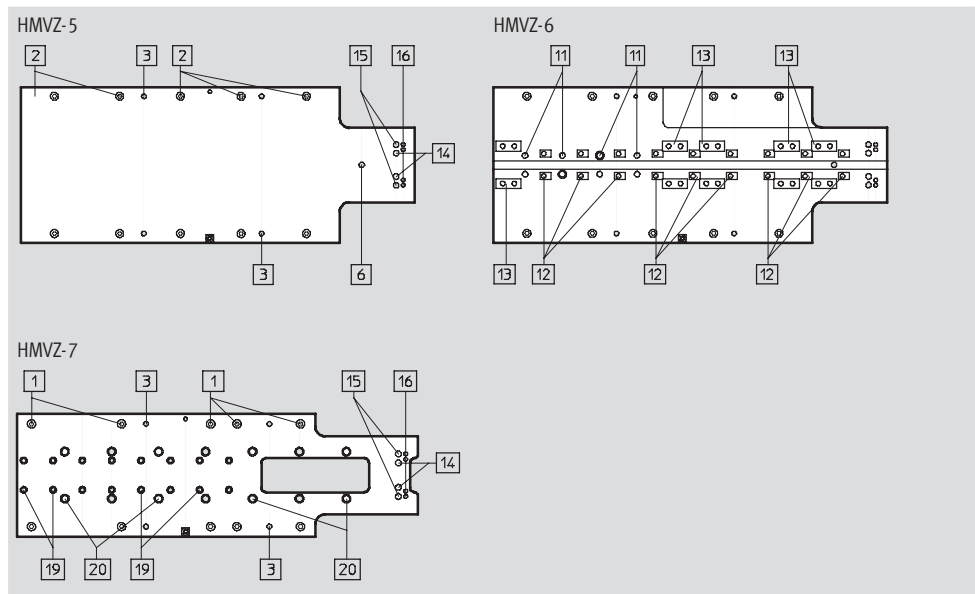
- 1 HMVS-DL-25
- 3 Universal interface
- 4 SLT-16
- 5 SLT-20/25
- 6 HMID-LP
- 7 DGE-25/DGEA-18
- 8 HMP-16/20
- 9 HMPL-16/20
- 10 HMPL-16/20, HMPL-...:KP
- 11 DGE-40/DGEA-25
- 14 Energy chain
- 15 Energy chain
- 16 MKRS-16,5/23/29-B
- 17 DGSL-16
- 18 DGSL-20/25



Connecting components

Technical data

- 1 HMVS-DL-25
- 2 HMVS-DL-40
- 3 Universal interface
- 6 HMID-LP
- 11 DGE-40/DGEA-25
- 12 DGE-40 (profile)
- 13 HMP-25
- 14 Energy chain
- 15 Energy chain
- 16 MKRS-16,5/23/29-B
- 19 EGSA-50
- 20 EGSA-60



| Dimensions, technical data and ordering data | | | | | | | |
|--|--------|-------|-------|-------------------|--------|----------|--------|
| B1 | B2 | L1 | L2 | CRC ¹⁾ | Weight | Part No. | Type |
| | ± 0.02 | - 0.5 | - 0.5 | | [g] | | |
| 125 | 105 | 410 | 305 | 2 | 1,520 | 539 372 | HMVZ-1 |
| | | | | | 1,510 | 539 373 | HMVZ-2 |
| | | | | | 1,490 | 539 374 | HMVZ-3 |
| | | | | | 1,450 | 539 375 | HMVZ-4 |
| | | | | | 1,470 | 560 021 | HMVZ-7 |
| 167 | 155 | 422 | 342 | 2 | 2,080 | 539 376 | HMVZ-5 |
| | | | | | 1,900 | 539 377 | HMVZ-6 |

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

Connecting components

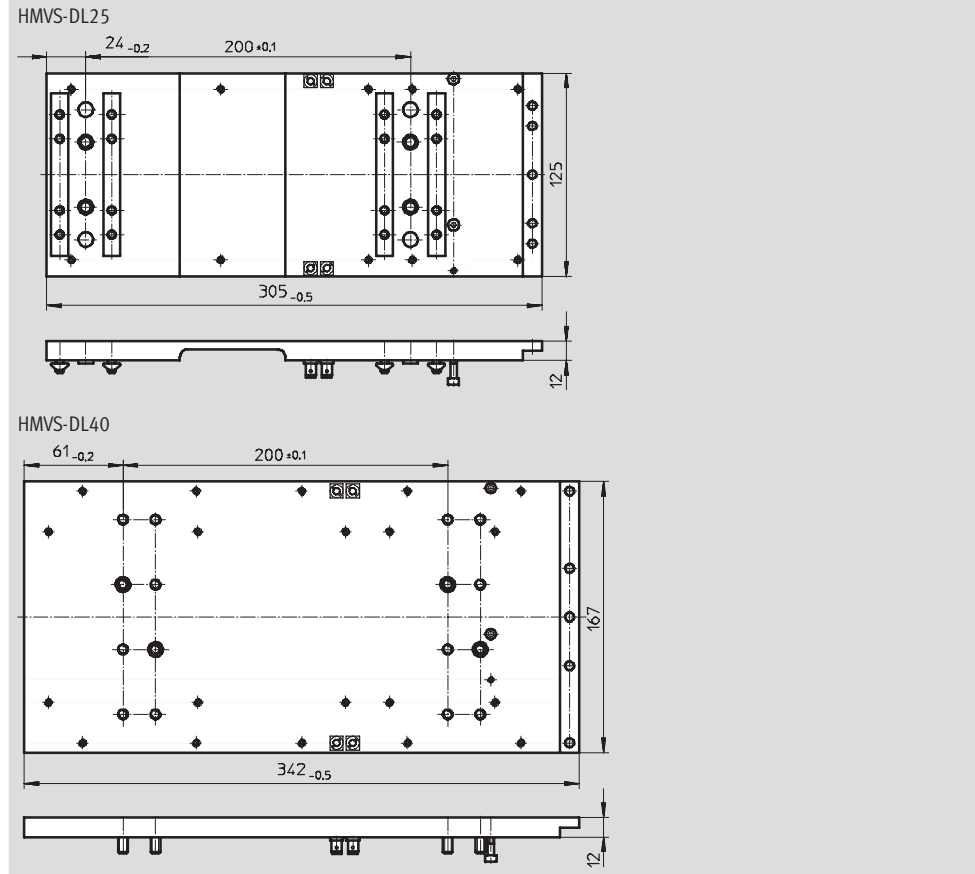
Technical data



Adapter kit HMVS-DL

- For linear and three-dimensional gantries
- For Mono and Duo systems
- Mounting interface for basic kit HMVZ
- Mounting accessories and earthing kits included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|-----------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 1,050 | 539 368 | HMVS-DL25 |
| | 1,800 | 539 369 | HMVS-DL40 |

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

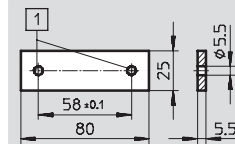
Connecting components

Technical data

Connecting plate HMVO-RF

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1) HMVM-LP-DL25/40
HMVD-LP-DL25/40
MUP-18/25

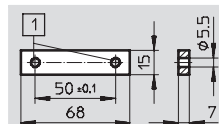
| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|-----------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 30 | 539 362 | HMVO-RF25 |

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

Connecting plate HMVO-POT

- For linear gantries
- Compensating component for displacement encoder MLO-POT-TLF to compensate for the difference in height with the linear drive DGPL with MUP

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1) HMVM-LP-DL25/40
HMVD-LP-DL25/40
MLO-POT-TLF

| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|----------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 20 | 539 973 | HMVO-POT |

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

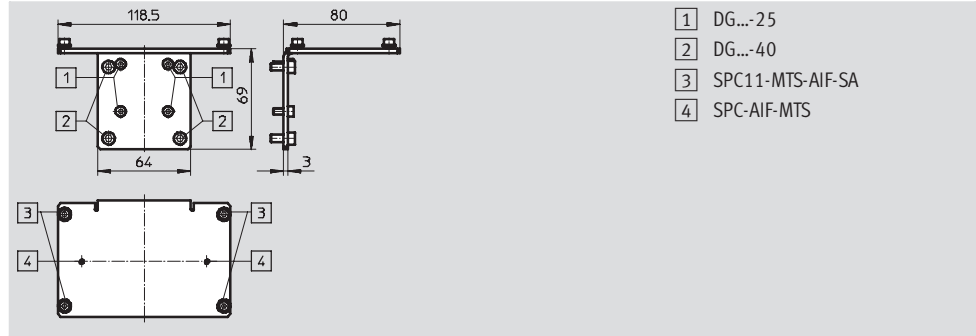
Connecting components

Technical data

Mounting kit HMVW-SPC

- For mounting the axis interface on the end cap of the drive
- Mounting accessories included in scope of delivery

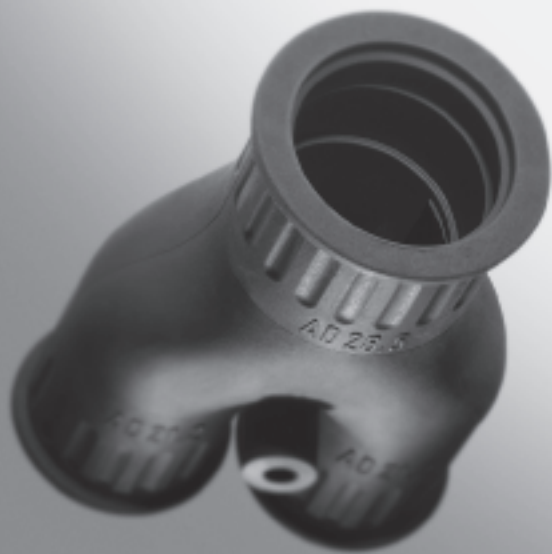
Material:
Galvanised steel
Free of copper, PTFE and silicone



- 1 DG...-25
- 2 DG...-40
- 3 SPC11-MTS-AIF-SA
- 4 SPC-AIF-MTS

| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|----------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 310 | 539 367 | HMVW-SPC |

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

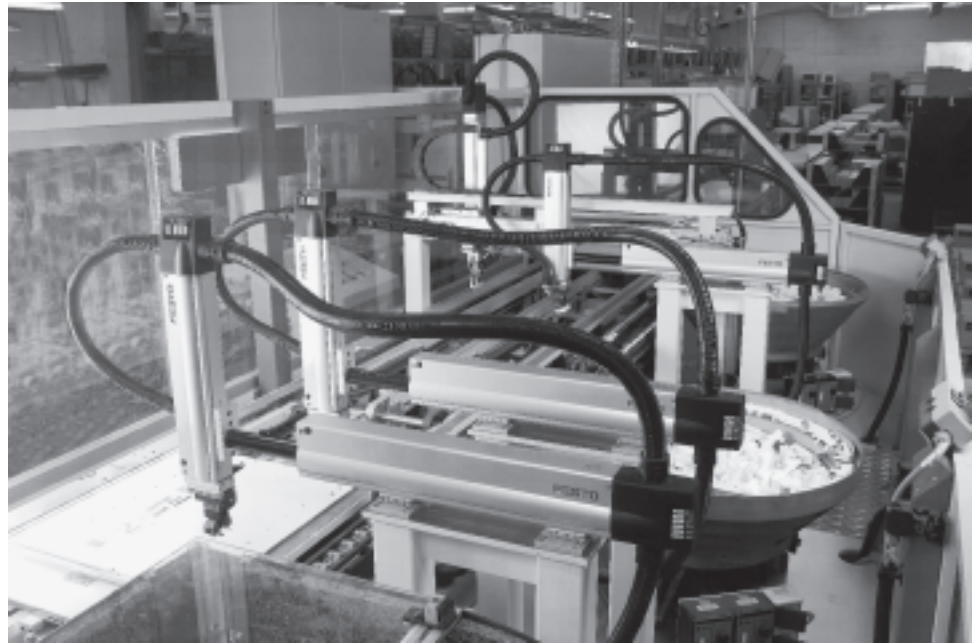


- Reliable guidance
- Rapid assembly and dismantling
- Low space requirement
- Low noise levels

Installation components for short strokes

Key features

Installation components facilitate a clear, safe layout of electrical cables and pneumatic tubing. They can be quickly dismantled and reassembled if servicing is required. They are mainly used for short strokes in Pick & Place systems and for installing drives along the Z-axis in gantry units.



Protective conduit MKR



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

Separable protective conduit MKG



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

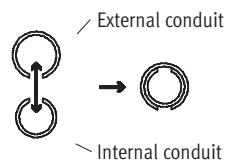
Junction box HMZV



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

Accessories

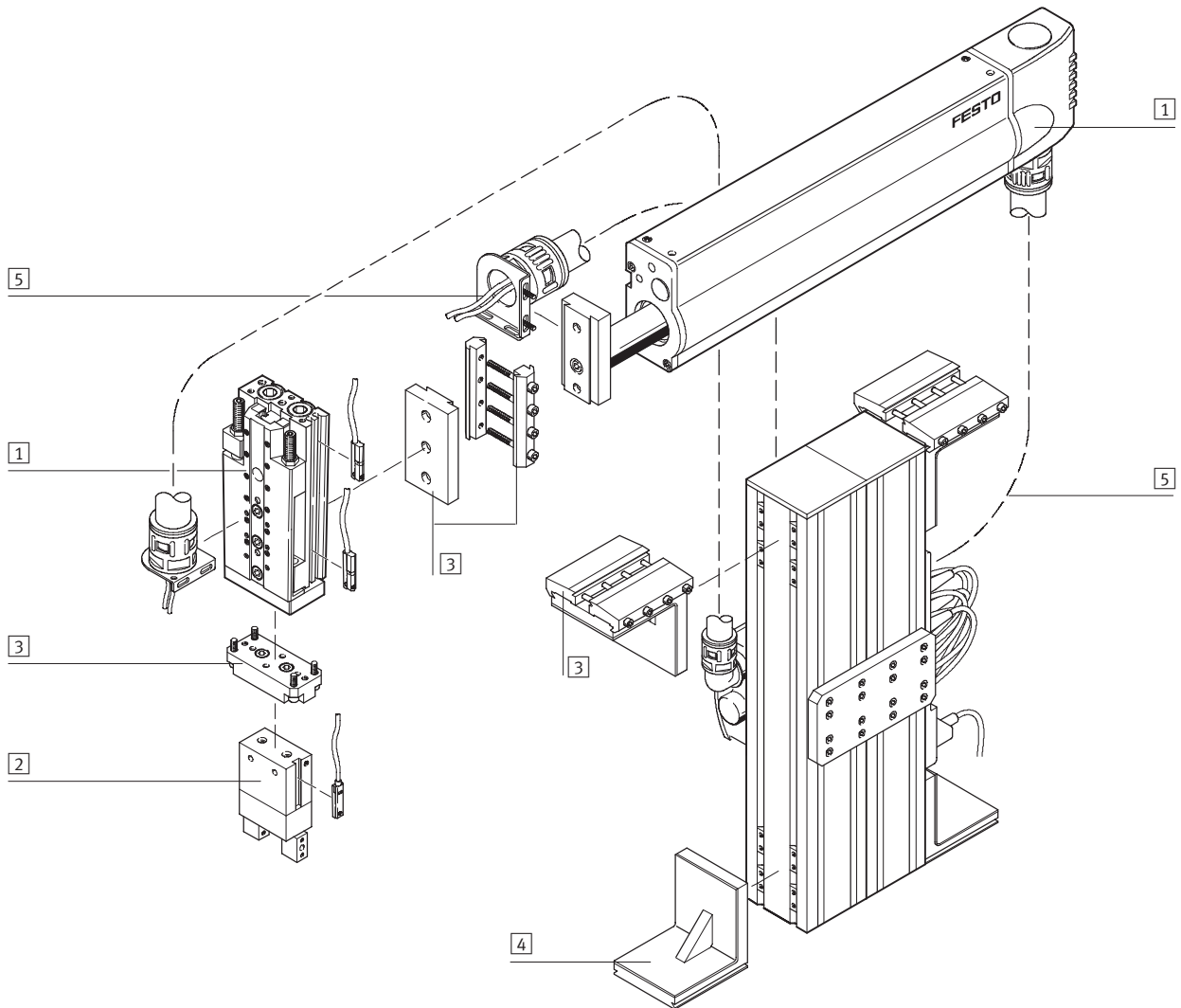
- Fittings and connectors
MKRV, MKGV, MKA, MKRL, MKRT, MKY
- Lock nut
MKM
- Retaining clip
MKRS
- Installation kit
HMZAS



Installation components for short strokes

System example

System product for handling and assembly technology

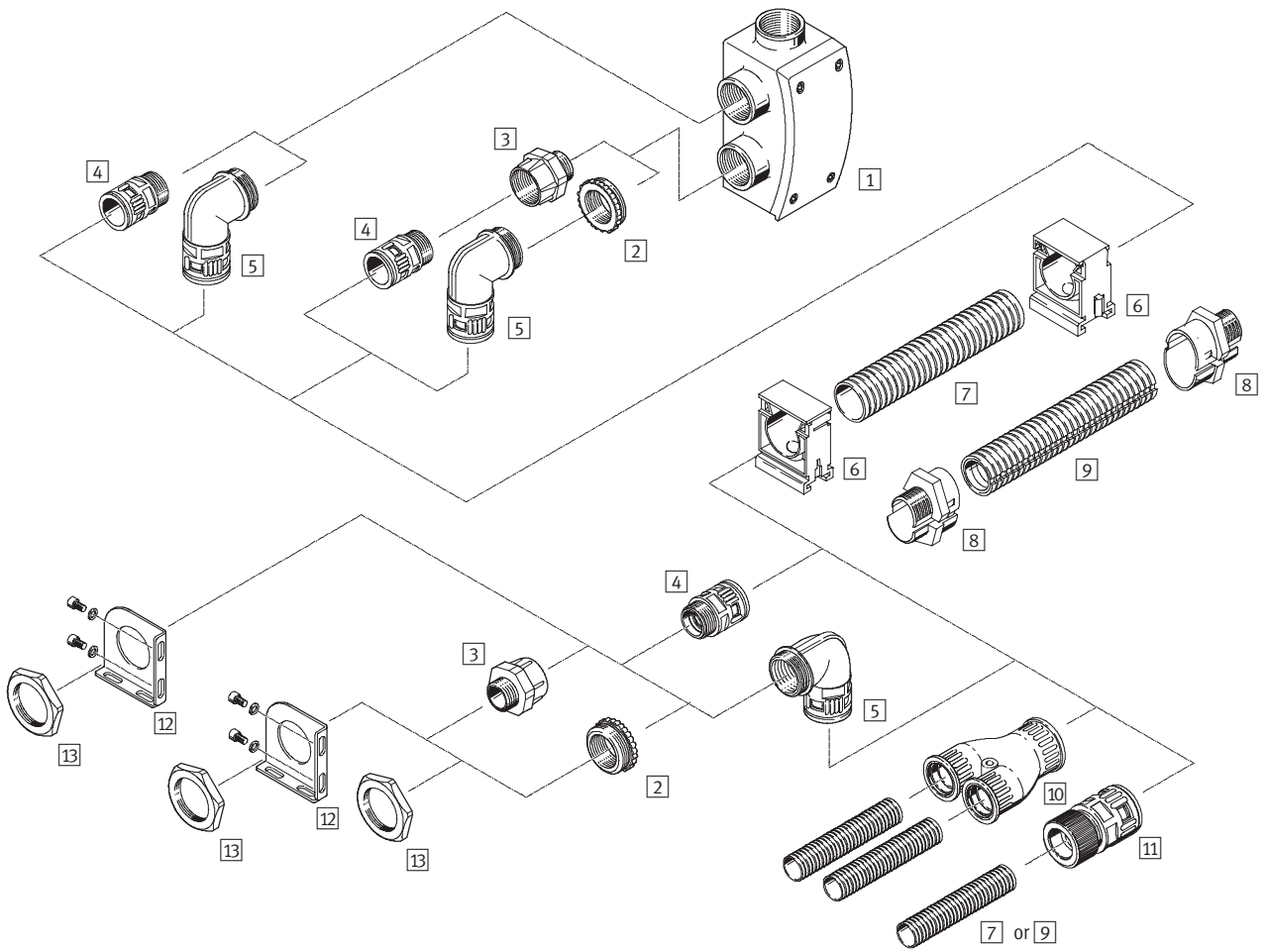


| System components and accessories | | | |
|-----------------------------------|-------------------------|---|------------------------|
| | Brief description | → Page/Internet | |
| 1 | Drives | Wide range of combinations possible within handling and assembly technology | drive |
| 2 | Gripper | Wide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

Installation components for short strokes

Peripherals overview

FESTO













Installation components for short strokes

Peripherals overview

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

Installation components for short strokes







Selection aid

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

Installation components for short strokes

Selection aid

FESTO

| Accessories | | Protective conduit | | | | | | Junction box | | → Page/ Internet | |
|---|---------------------------------------|---|-------|-------|-------|---|-------|---|-------|---------------------|--|
| | | MKR | | | | MKG, separable | | HMZV | | | |
| | |  | | | |  | |  | | | |
| Connecting thread | | Pg 9 | Pg 11 | Pg 16 | Pg 21 | Pg 29 | Pg 21 | Pg 29 | Pg 29 | | |
| Lock nut MKM | | | | | | | | | | | |
|  | Pg 9 | ■ | - | - | - | - | - | - | - | 101 | |
| | Pg 11 | - | ■ | - | - | - | - | - | - | | |
| | Pg 16 | - | - | ■ | - | - | - | - | - | | |
| | Pg 21 | - | - | - | ■ | - | ■ | - | - | | |
| | Pg 29 | - | - | - | - | ■ | - | ■ | - | | |
| Retaining clip MKRS | | | | | | | | | | | |
|  | Pg 9 | ■ | - | - | - | - | - | - | - | 101 | |
| | Pg 11 | - | ■ | - | - | - | - | - | - | | |
| | Pg 16 | - | - | ■ | - | - | - | - | - | | |
| | Pg 21 | - | - | - | ■ | - | ■ | - | - | | |
| | Pg 29 | - | - | - | - | ■ | - | ■ | - | | |
| Installation kit HMZAS | | | | | | | | | | | |
|  | for connecting thread Pg 21 and Pg 29 | | | | | | | | | 102 | |
| Technical data → Page/Internet | | 94 | | | | | 95 | | 95 | | |

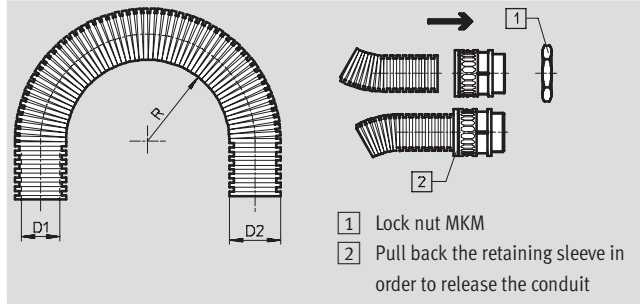
Installation components for short strokes

Technical data



Protective conduit MKR
for Pg connecting thread

Material:
Polyamide
Free of copper, PTFE and silicone



- 1 Lock nut MKM
- 2 Pull back the retaining sleeve in order to release the conduit

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

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

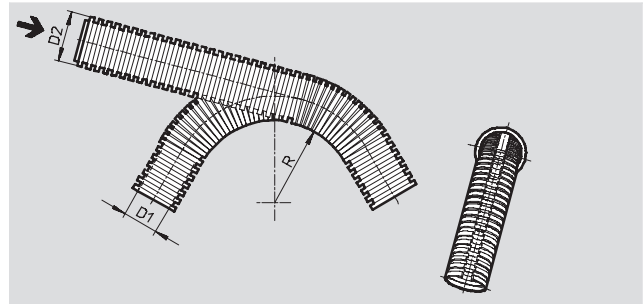
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Protective conduit MKG, separable for Pg connecting thread

Material:
Polypropylene
Free of copper, PTFE and silicone



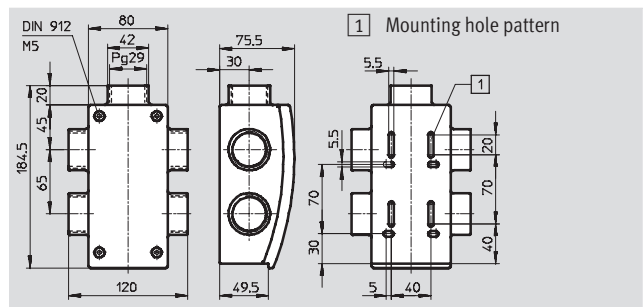
| Dimensions and ordering data | | | | | |
|------------------------------|---------|---------|-------|---------------------------|------------------|
| Pg connecting thread | D1 Ø | D2 Ø | R | Temperature range [°C] | Protection class |
| Pg 21 | 19.5 | 25.5 | ≥ 130 | -20 ... +90 | IP 50 |
| Pg 29 |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

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

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

Junction box HMZV with mounting kit for profile column HMBS

Material:
Polyamide
Free of copper, PTFE and silicone



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

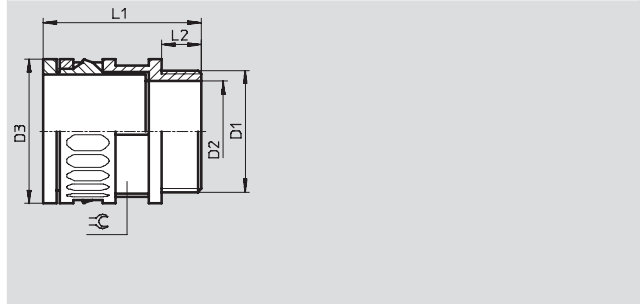
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Protective conduit fitting MKRV

Material:
Polyamide
Free of copper, PTFE and silicone



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

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

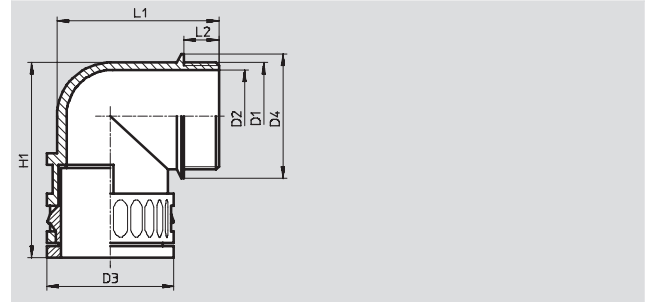
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Elbow connector for protective conduit MKRL

Material:
Polyamide
Free of copper, PTFE and silicone



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

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

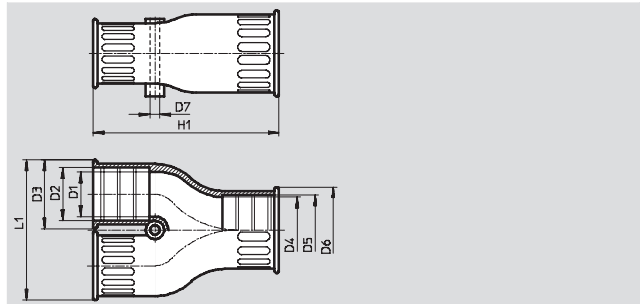
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Y distributor MKY

Material:
Thermoplastic rubber
Free of copper, PTFE and silicone



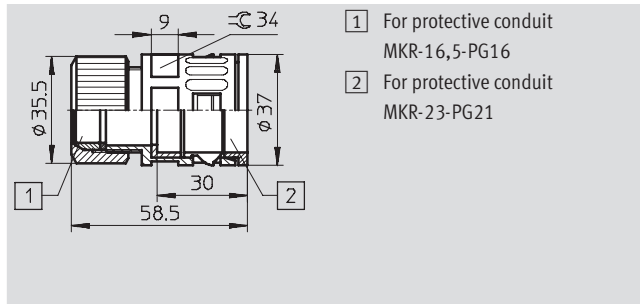
| Dimensions and ordering data | | | | | | | |
|------------------------------|------|------|------|------|------|----|------|
| Pg connecting thread D1 | D2 | D3 | D4 | D5 | D6 | D7 | H1 |
| Ø | Ø | Ø | Ø | Ø | Ø | Ø | |
| Pg 21 | 21.2 | 29.5 | 25.5 | 28.5 | 36.5 | 4 | 81.5 |
| Pg 29 | 28.5 | 36.5 |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

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

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

Protective conduit connector MKRT

Material:
Polyamide
Free of copper, PTFE and silicone



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

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

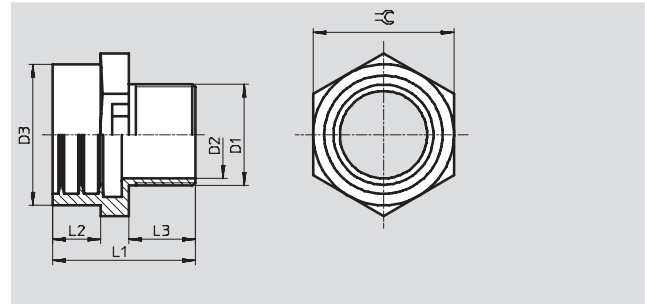
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Protective conduit connector MKGV, separable

Material:
Polyamide
Free of copper, PTFE and silicone



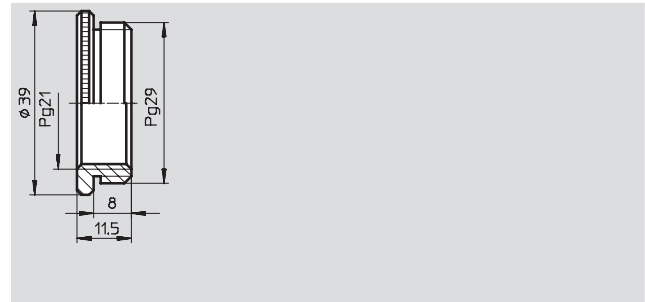
| Dimensions and ordering data | | | | | | |
|------------------------------|----|----|----|----|----|----|
| Pg connecting thread D1 | D2 | D3 | L1 | L2 | L3 | ⊕ |
| ∅ | ∅ | ∅ | | | | |
| Pg 21 | 20 | 26 | 34 | 12 | 17 | 32 |
| Pg 29 | 31 | 32 | 42 | 13 | 21 | 41 |
| | | 42 | 50 | 17 | 22 | 50 |

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

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

Reducing connector MKA for reducing Pg 29 to Pg 21

Material:
Brass, nickel-plated
Free of copper, PTFE and silicone



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

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

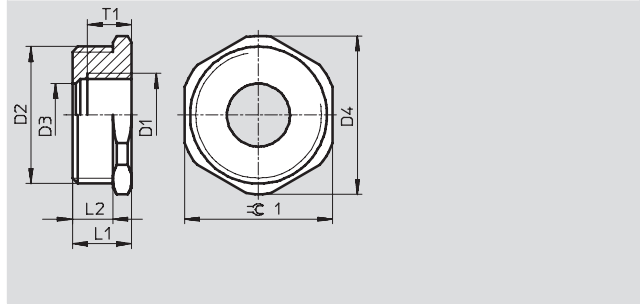
Installation components for short strokes

Technical data

Reducing connector MKA-KU

for reducing Pg 21 to Pg 16
for reducing Pg 29 to Pg 16

Material:
Polyamide
Free of copper, PTFE and silicone



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

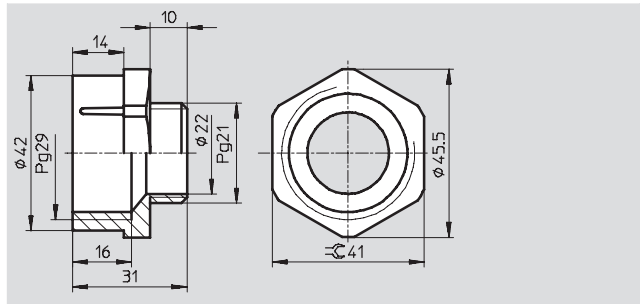
| Pg connecting thread | ≡ | Temperature range [°C] | Protection class | Mounting position | CRC ¹⁾ | Weight [g] | Part No. | Type |
|----------------------|------|------------------------|------------------|-------------------|-------------------|------------|----------|--------------------|
| Pg 21/Pg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

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

Reducing connector MKA-KU

for enlarging Pg 21 to Pg 29

Material:
Polyamide
Free of copper, PTFE and silicone



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

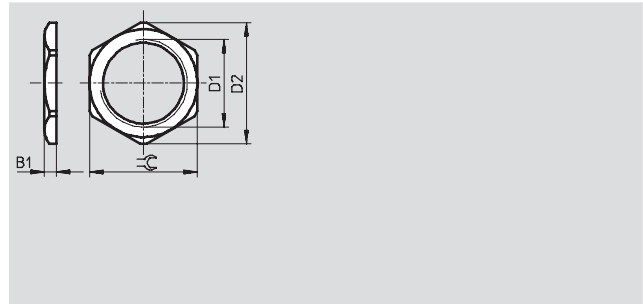
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Lock nut MKM

Material:
Brass, nickel-plated
Free of copper, PTFE and silicone

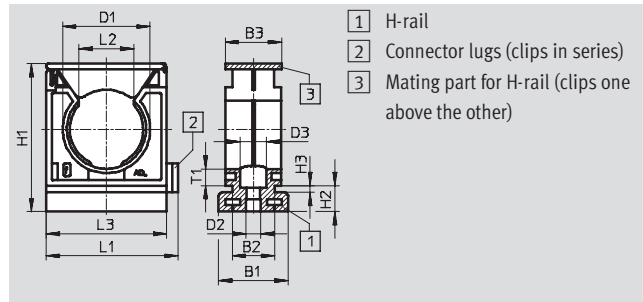


| Dimensions and ordering data | | | | | | | | | |
|------------------------------|------|-----|----|-------------------|-------------------|------------|----------|-----------|--|
| Pg connecting thread D1 | D2 | D3 | ⌀ | Mounting position | CRC ¹⁾ | Weight [g] | Part No. | Type | |
| Pg 9 | 20 | 2.8 | 18 | Any | 2 | 2 | 177 596 | MKM-PG-9 | |
| Pg 11 | 23.5 | 3 | 21 | | | 3 | 177 597 | MKM-PG-11 | |
| Pg 16 | 29 | | 26 | | | 5 | 177 598 | MKM-PG-16 | |
| Pg 21 | 35.5 | 3.5 | 32 | | | 8 | 177 599 | MKM-PG-21 | |
| Pg 29 | 45 | 4 | 41 | | | 14 | 177 600 | MKM-PG-29 | |

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

Retaining clip MKRS

Material:
Polyamide
Free of copper, PTFE and silicone



- 1 H-rail
- 2 Connector lugs (clips in series)
- 3 Mating part for H-rail (clips one above the other)

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

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

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

Installation components for short strokes

Technical data



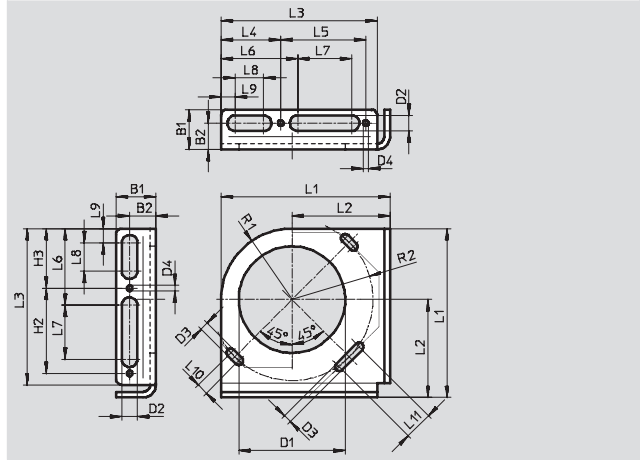
Installation kit HMZAS

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

Material:

Powder-coated steel

Free of copper, PTFE and silicone

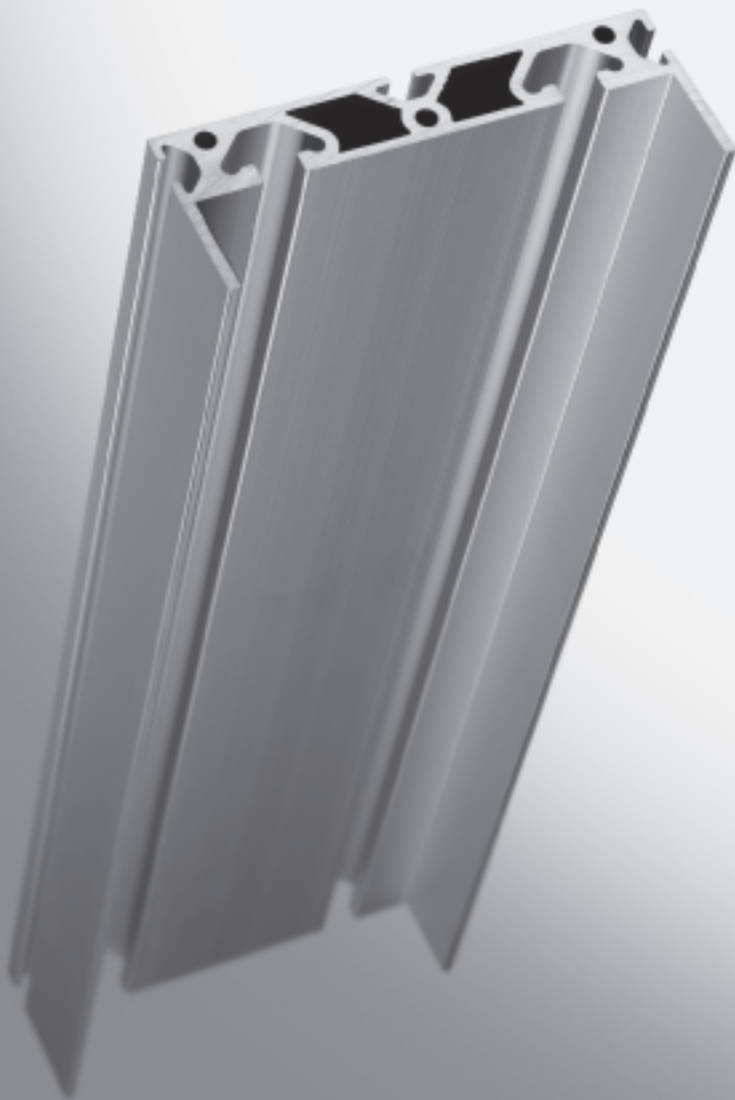


| Dimensions and ordering data | | | | | | | | | |
|------------------------------|----|------|---------|---------|---------|---------|----|----|------|
| For linear module | B1 | B2 | D1 ∅ | D2 ∅ | D3 ∅ | D4 ∅ | H2 | H3 | L1 |
| HMPL | 14 | 9.25 | 28.6 | 5.3 | 3 | - | - | - | 54.5 |
| HMP | | | 37.5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

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

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

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



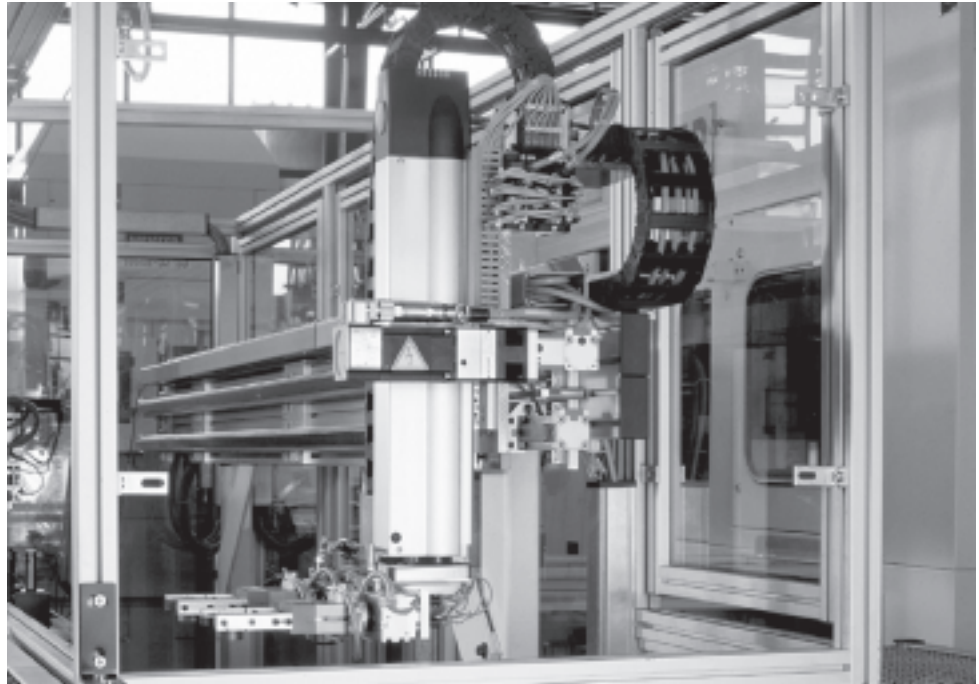
- Reliable guidance
- Rapid assembly and dismantling
- Low space requirement

Installation components for long strokes

Key features

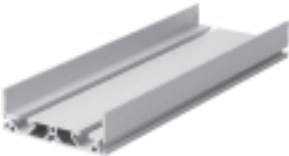
Installation components facilitate a clear-cut, safe layout of electrical cables and pneumatic tubing. They can be quickly dismantled and reassembled if servicing is required. They are mainly used for long strokes in gantries and cantilever axes for connecting energy chains for the drives along the X-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

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



Support profile

HMIA



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

Installation kits

HMIXB-RP/FP



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

HMIXF-RP/FP



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

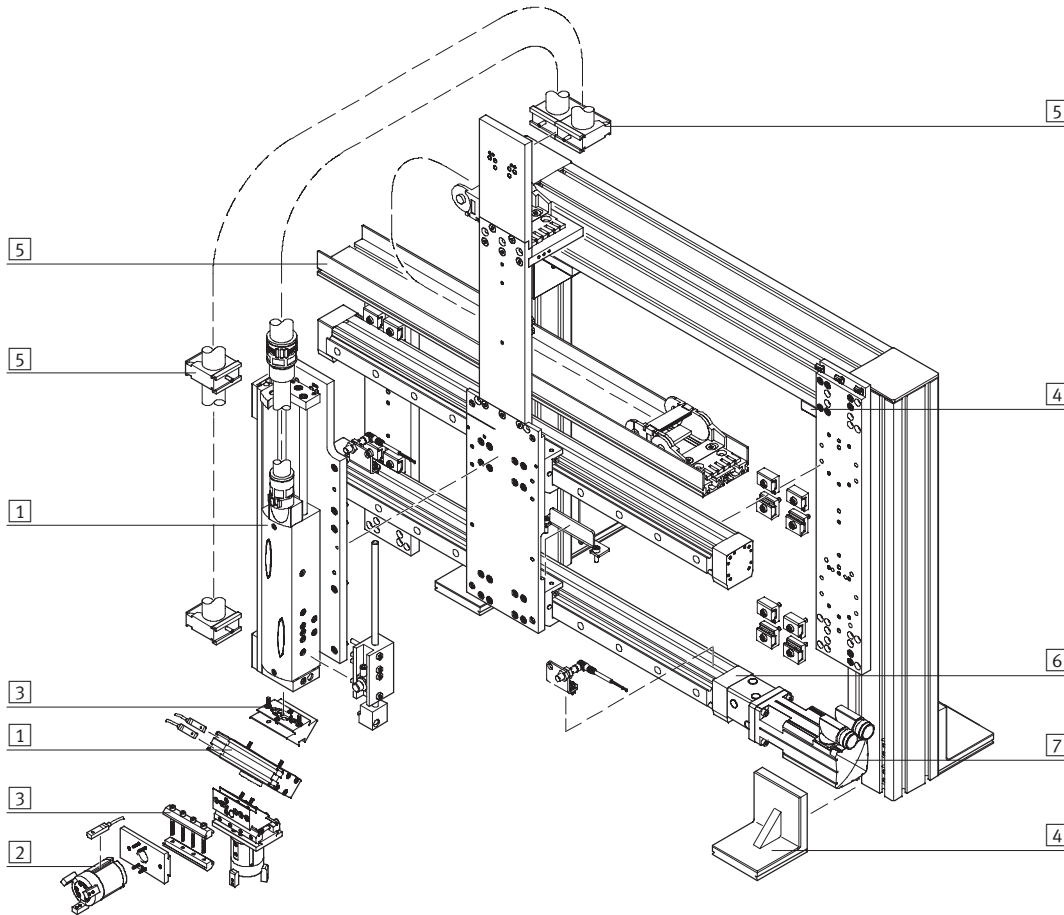
Accessories

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

Installation components for long strokes

System example





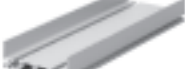


System product for handling and assembly technology



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







Installation components for long strokes

Selection aid

| Installation kits and support profiles | Energy chains | | | ENERGY CHAIN MC series | | |
|---|---------------------------|-------------|-------------|------------------------|-----------------------|-----------------------|
| | IGUS E2 medium series 240 | | | Energy chain | | |
| | Energy chain | | | Energy chain | | |
| | 240.03.075 | 240.05.100 | 240.07.100 | 0320.40-01-077 | 0320.60-01-100 | 0320.80-01-100 |
| | Connector | | | Connector | | |
| | 2030.12.PZB | 2050.12.PZB | 2070.12.PZB | FA/MA | FA/MA | FA/MA |
| | Internal divider | | | Internal divider | | |
| | 211 | 211 | 211 | TS 0-n _T 2 | TS 0-n _T 2 | TS 0-n _T 2 |
| Installation kit HMIZB-E03  | → 108 | - | - | → 108 | - | - |
| Installation kit HMIZF-E03-DA18  | → 108 | - | - | → 108 | - | - |
| Installation kit HMIZF-E03-DA25  | → 108 | - | - | → 108 | - | - |
| Support profile HMIA-E05  | - | → 109 | - | - | → 109 | - |
| Support profile HMIA-E07  | - | - | → 109 | - | - | → 109 |
| Installation kit HMIO-AP-1  | - | → 109 | - | - | → 109 | - |
| Installation kit HMIO-AP-2  | - | → 109 | - | - | → 109 | - |

Installation components for long strokes

Selection aid

| Installation kits and support profiles | Energy chains | | | ENERGY CHAIN MC series | | |
|--|---------------------------|-------------|-------------|------------------------|-----------------------|-----------------------|
| | IGUS E2 medium series 240 | | | Energy chain | | |
| | Energy chain | | | Energy chain | | |
| | 240.03.075 | 240.05.100 | 240.07.100 | 0320.40-01-077 | 0320.60-01-100 | 0320.80-01-100 |
| | Connector | | | Connector | | |
| | 2030.12.PZB | 2050.12.PZB | 2070.12.PZB | FA/MA | FA/MA | FA/MA |
| | Internal divider | | | Internal divider | | |
| | 211 | 211 | 211 | TS 0-n _T 2 | TS 0-n _T 2 | TS 0-n _T 2 |
| Installation kit HMIXF-RP/FP  | - | - | → 111 | - | - | → 111 |
| Installation kit HMIYF-RF/DL25  | - | - | → 112 | - | - | → 112 |
| Installation kit HMIYF-RF/DL40  | - | - | → 112 | - | - | → 112 |
| Installation kit HMIM-LP  | → 110 | | | → 110 | | |
| Installation kit HMID-LP  | → 110 | | | → 110 | | |
| Installation kit HMIXB-RP/FP  | → 111 | | | → 111 | | |

Installation components for long strokes

Technical data

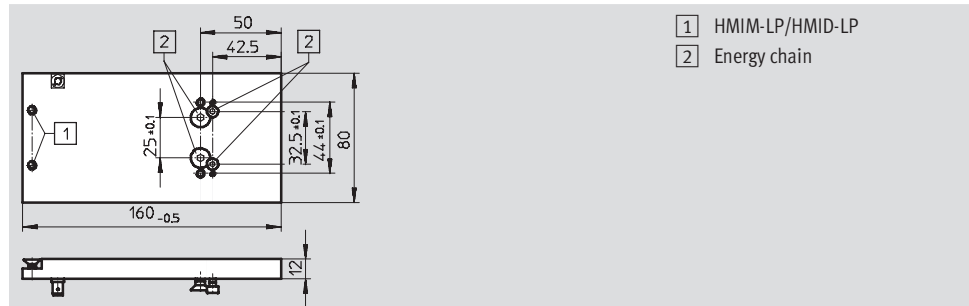


Installation kit HMIZB-E03

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

- Cantilever axes DGEA
- Spindle axes DGE
- Linear modules HMP and HMPL
- Mini slides SLT
- Mounting accessories and earthing kit included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|-----------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 410 | 539 365 | HMIZB-E03 |

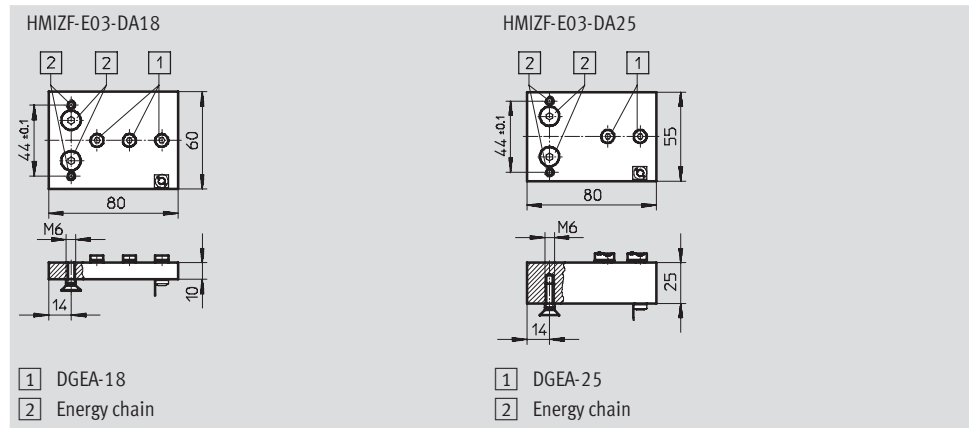
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation kit HMIZF-E03

For connecting energy chains to the Z-axis in gantries

- Cantilever axes DGEA
- Mounting accessories and earthing kit included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|----------------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 130 | 539 370 | HMIZF-E03-DA18 |
| | 300 | 539 371 | HMIZF-E03-DA25 |

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

Installation components for long strokes

Technical data



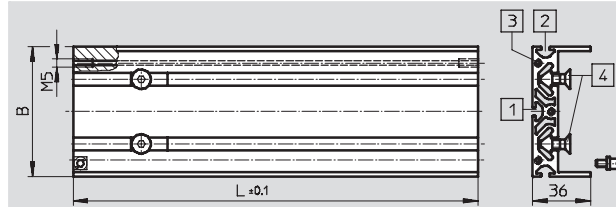
Support profile HMIA



For mounting and routing the energy chains in gantries along the X- and Y-axes

- Mounting accessories and earthing kit included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

Technical data and ordering codes

| B [mm] | CRC ¹⁾ | Weight per metre [g] | Part No. | Type |
|--------|-------------------|----------------------|----------|--------------|
| 80 | 2 | 2,120 | 539 378 | HMIA-E05-... |
| 100 | | 2,340 | 539 379 | HMIA-E07-... |

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

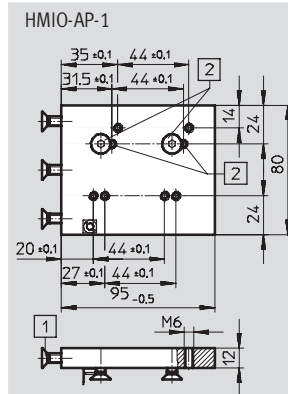
Installation kit HMIO-AP



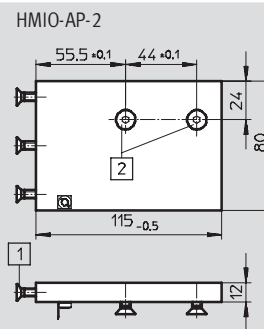
For mounting the energy chains along the Y-axis in linear gantries

- Mounting accessories and earthing kit included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 HMVS-DL25, HMVS-DL40
HMIM-LD
HMID-LD
- 2 Energy chain



- 1 HMVS-DL40
HMID-LD
- 2 Energy chain

Technical data and ordering codes

| CRC ¹⁾ | Weight [g] | Part No. | Type |
|-------------------|------------|----------|-----------|
| 2 | 240 | 539 366 | HMIO-AP-1 |
| | 300 | 540 121 | HMIO-AP-2 |

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

Installation components for long strokes

Technical data

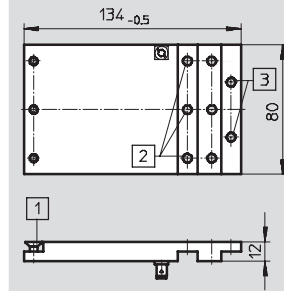


Installation kit HMIM-LP

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

- Mounting accessories and earthing kit included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|---------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 300 | 539 364 | HMIM-LP |

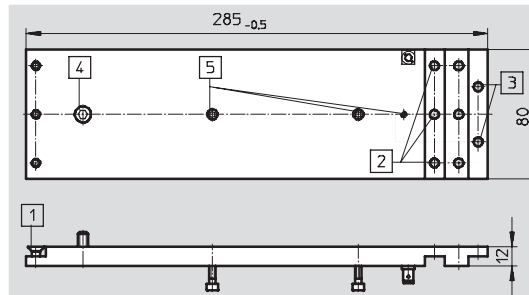
1) Corrosion resistance class 2 as per Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation kit HMID-LP

Extension plate for linear gantries for height compensation in duo systems

- Mounting accessories and earthing kit included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|---------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 700 | 539 363 | HMID-LP |

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

Installation components for long strokes

Technical data

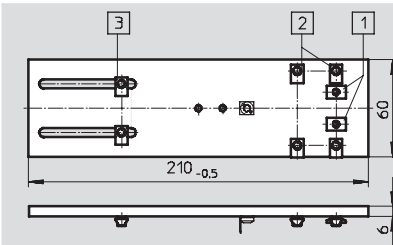
Installation kit HMIXB-RP/FP



For mounting the support profile HMIA-E07 along the X-axis in three-dimensional gantries

- Mounting accessories and earthing kit included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

Technical data and ordering codes

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

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

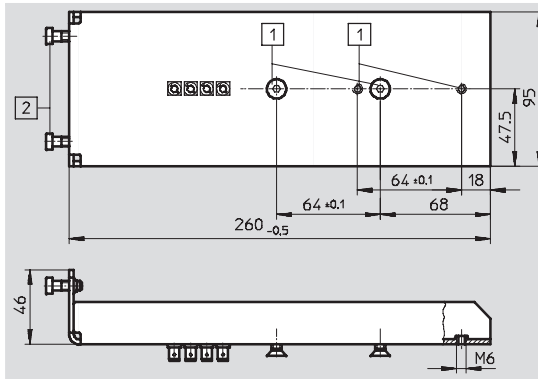
Installation kit HMIXF-RP/FP



For mounting the energy chain along the X-axis in three-dimensional gantries

- Mounting accessories and earthing kits included in scope of delivery

Material:
Galvanised steel
Free of copper, PTFE and silicone



- 1 Energy chain
- 2 HMVV-RP/FP

Technical data and ordering codes

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

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

Installation components for long strokes

Technical data

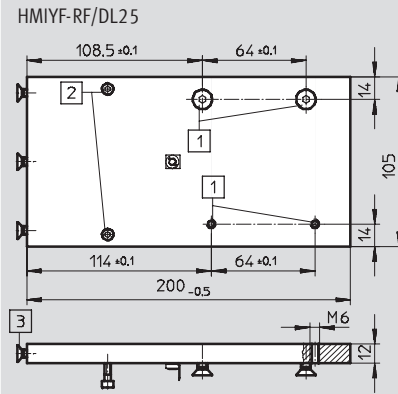


Installation kit HMIYF-RF/DL

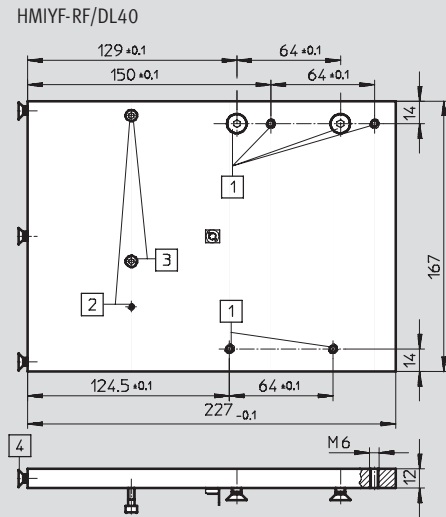
For mounting the energy chain along the Y-axis in three-dimensional gantries

- Mounting accessories and earthing kit included in scope of delivery

Material:
Anodised aluminium
Free of copper, PTFE and silicone



- 1 Energy chain
- 2 MPV-E/A08-M8
- 3 HMVS-DL25



- 1 Energy chain
- 2 MPV-E/A12-M8
- 3 MPV-E/A08-M8
- 4 HMVS-DL40

| Technical data and ordering codes | | | |
|-----------------------------------|--------|----------|---------------|
| CRC ¹⁾ | Weight | Part No. | Type |
| | [g] | | |
| 2 | 700 | 539 659 | HMIYF-RF/DL25 |
| | 1,200 | 539 660 | HMIYF-RF/DL40 |

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