



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

Multi-axis modular systems

Key features









The concept

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

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

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

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

| Selection matrix | | |
|---|---|---|
| Pick & place | Linear gantries | Three-dimensional gantries |
| Pneumatic | | Pneumatic/electrical |
|  <p>→ 4</p> |  <p>→ 19</p> |  <p>→ 38</p> |
| Pneumatic with end-position controller SPC11 (Soft Stop) | | |
| |  <p>→ 19</p> | |
| Electrical with spindle or toothed belt axis | | |
| |  <p>→ 19</p> |  <p>→ 38</p> |

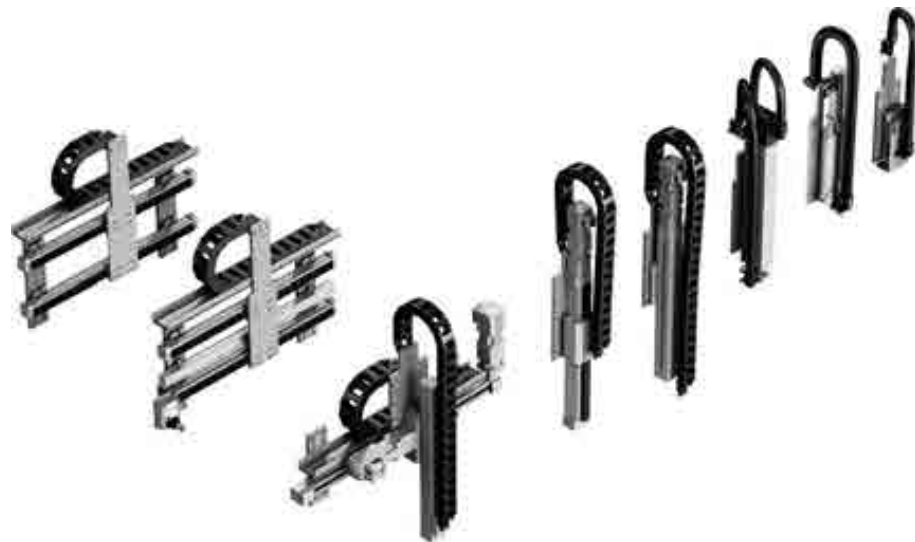
Multi-axis modular systems

Key features

Pick & place



Linear gantries



Three-dimensional gantries



Pick & place

Key features

FESTO

Y and Z modules



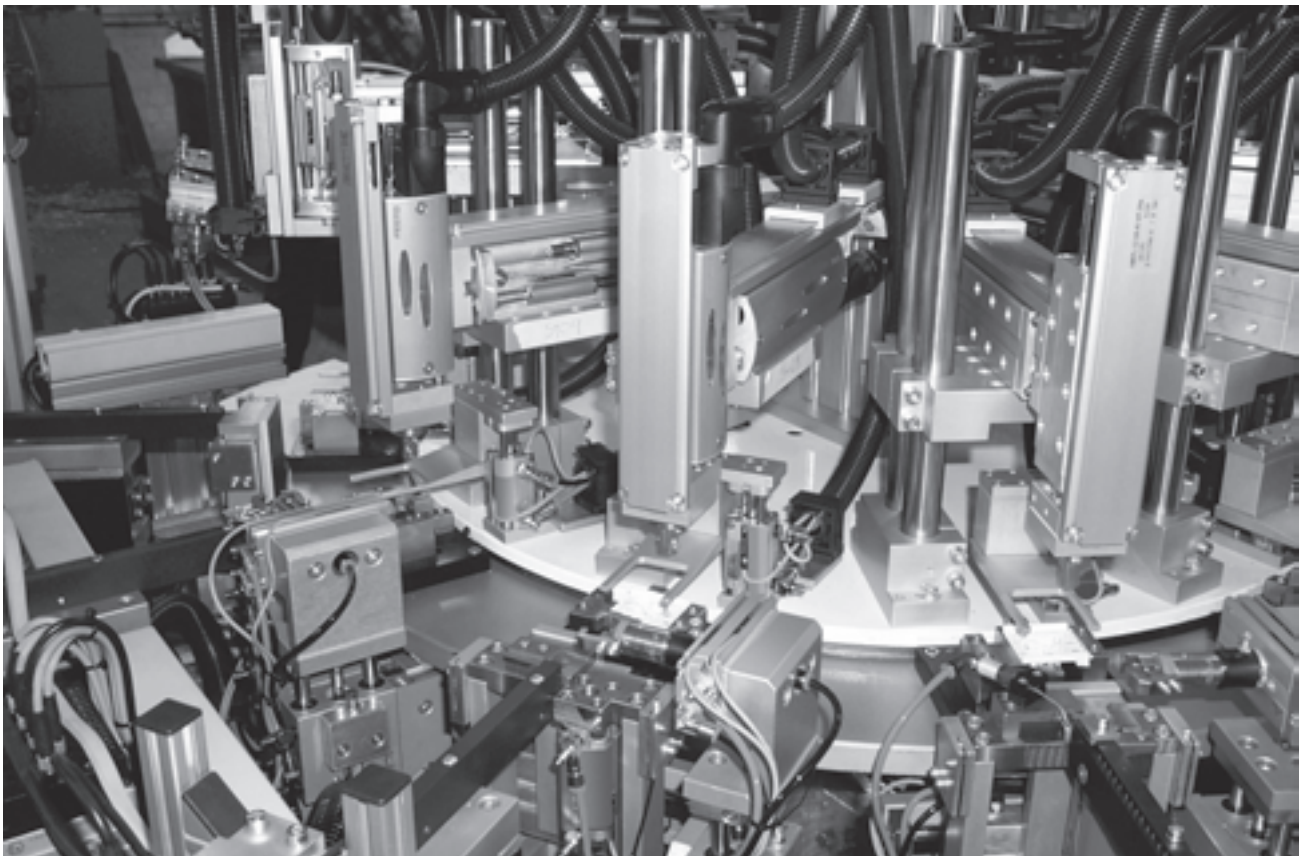
Y modules

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

Z modules

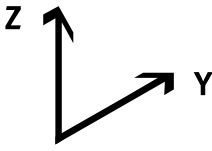




- Pneumatic: DGSL, SLT, HMP
- Electric: SLTE

Application






Pick & place

Product range overview

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




Pick & place

Selection aid for basic, connecting and installation components

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

Pick & place

Selection aid for basic, connecting and installation components

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

Selection example

Project engineering produced the following drive combination:

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

Step 1

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

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

Step 2

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





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

Step 3

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




Pick & place

Selection aid for basic, connecting and installation components

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

Pick & place

Selection aid for basic, connecting and installation components

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

Selection example

Project engineering produced the following drive combination:

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

Step 1

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

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

Step 2

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

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

Step 3

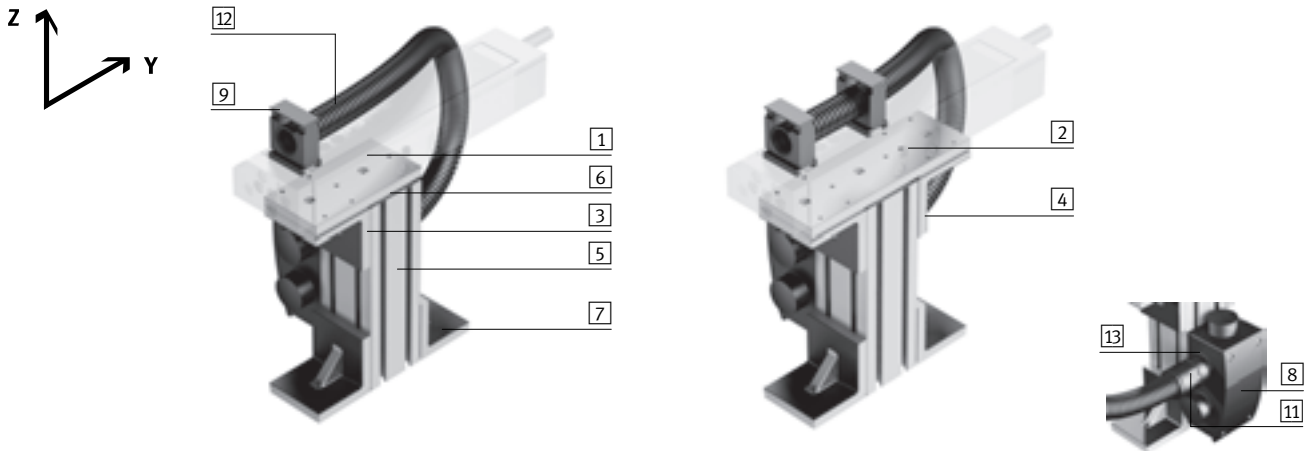
Technical data on the basic, connecting and installation components can be found on the specified pages. Further accessories for the selected drives, for example proximity sensors, centring sleeves, etc. are listed in the documentation for the drives.

Pick & place

Y modules

FESTO

Mini slides DGSL



| Parts list | | | | | | | | | | |
|------------|-----------------|-------------------------------|--------------|----------------------------|--------------|----------------------------|------|----------------------------|------|---------------------|
| 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 | | | | → Page/ Internet |
| Item | Pieces | Part No. | Type | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 1 | 539 968 HMOVY-1 | | 539 969 HMOVY-2 | | – | | 539 969 HMOVY-2 | | 79 |
| 2 | 1 | – | | – | | 539 970 HMOVY-3 | | – | | 539 970 HMOVY-3 |
| 3 | 1 | 175 967 HMBV-ND | | 175 967 HMBV-ND | | – | | 175 967 HMBV-ND | | 65 |
| 4 | 2 | – | | – | | 175 967 HMBV-ND | | – | | 175 967 HMBV-ND |
| 5 | 1 ¹⁾ | 175 958 HMBS-80/80 | | 175 958 HMBS-80/80 | | 175 958 HMBS-80/80 | | 175 958 HMBS-80/80 | | 62 |
| 6 | 1 | 175 965 HMBSA-80/80 | | 175 965 HMBSA-80/80 | | 175 965 HMBSA-80/80 | | 175 965 HMBSA-80/80 | | 62 |
| 7 | 2 | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 175 951 HMBF-DB | | 64 |
| 8 | 1 | 175 126 HMZV | | 175 126 HMZV | | 175 126 HMZV | | 175 126 HMZV | | 95 |
| 9 | 1 | 192 289 MKRS-16,5-B | | 192 290 MKRS-23-B | | 192 290 MKRS-23-B | | 192 290 MKRS-23-B | | 102 |
| | | 548 803 ZBV-M5-7 | | 548 804 ZBV-M6-9 | | 548 804 ZBV-M6-9 | | 548 804 ZBV-M6-9 | | 71 |
| 11 | 1 | 177 571 MKRV-16,5-PG-16 | | 177 572 MKRV-23-PG-21 | | 177 572 MKRV-23-PG-21 | | 177 572 MKRV-23-PG-21 | | 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 | | 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 | | 100 |

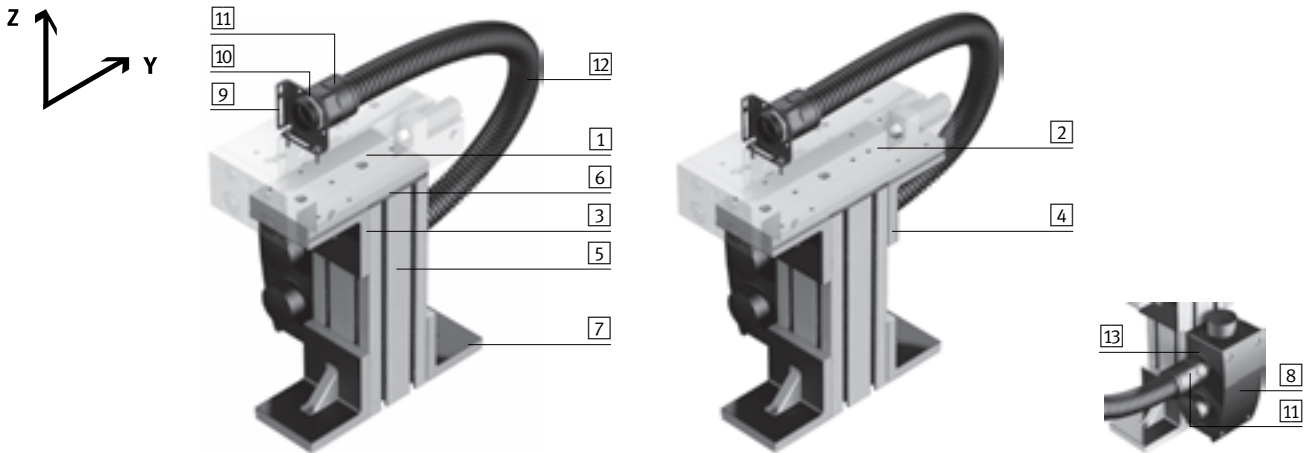
1) Height max. 500 mm

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

Pick & place

Y modules

Mini slides SLT



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

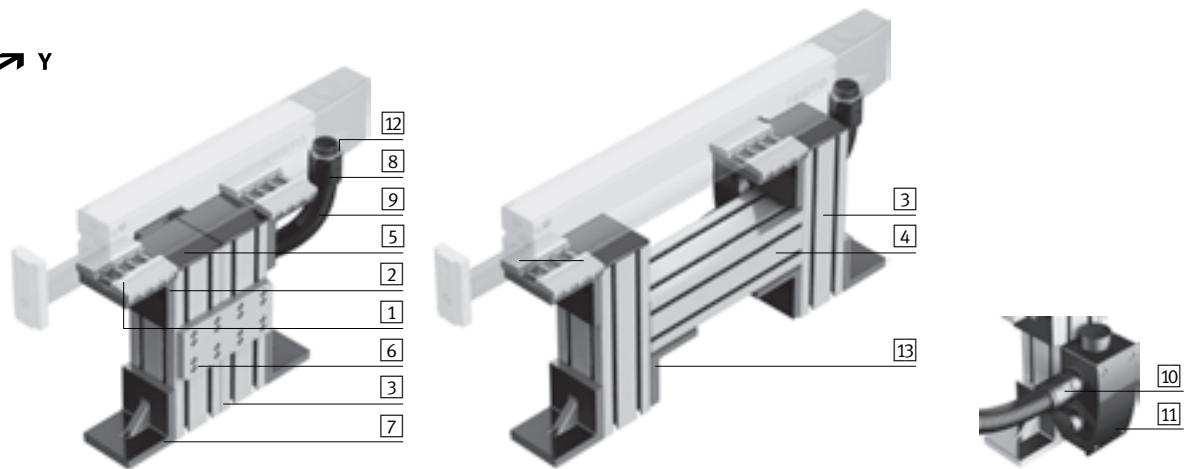
1) Height max. 500 mm

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

Pick & place

Y modules

Linear modules HMP



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

1) Height max. 500 mm

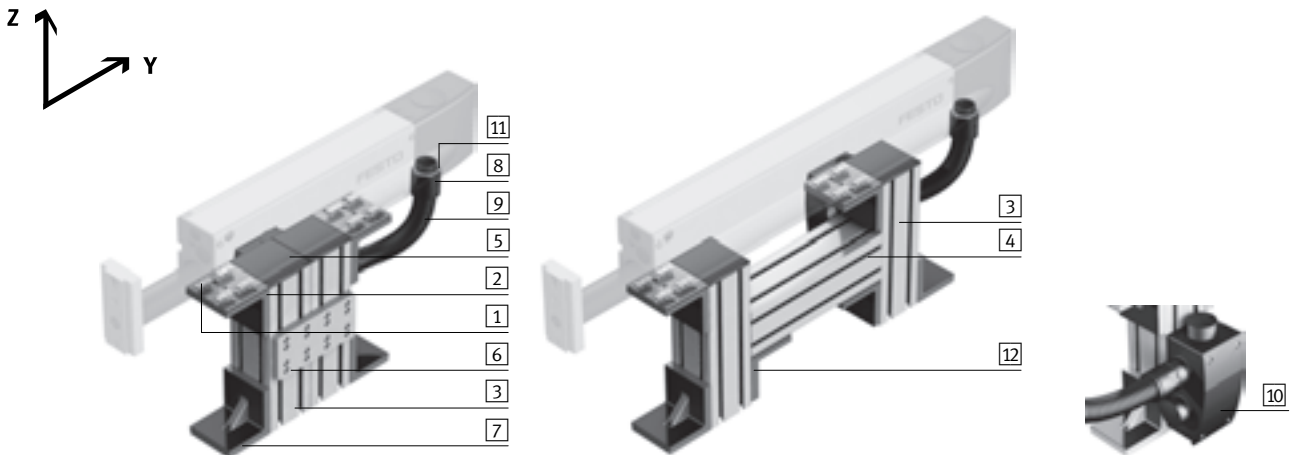
2) Length 250 mm

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

Pick & place

Y modules

Linear modules HMP



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

1) Height max. 500 mm

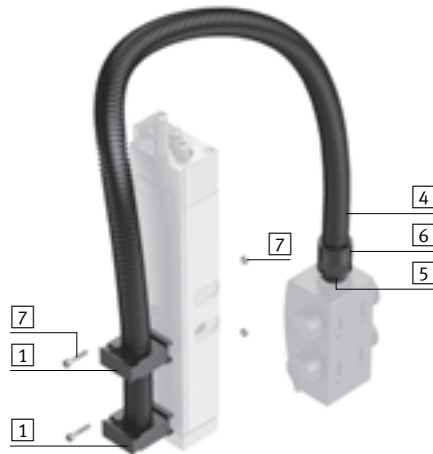
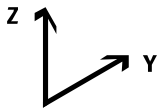
2) Length 350 mm

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

Pick & place

Z modules

Mini slides DGSL



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

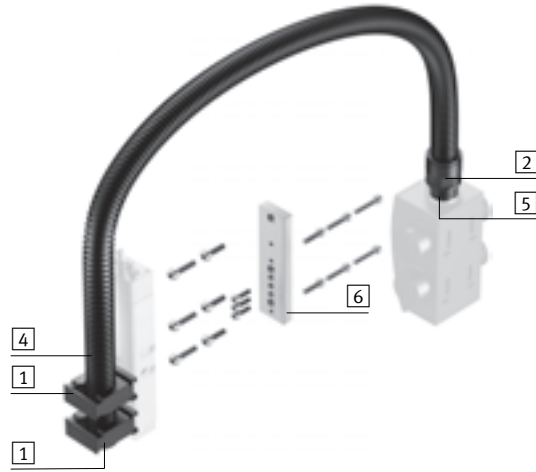
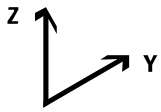
1) Length depends on the stroke of the drive (scope of delivery: 1m)

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

Pick & place

Z modules

Mini slides DGSL



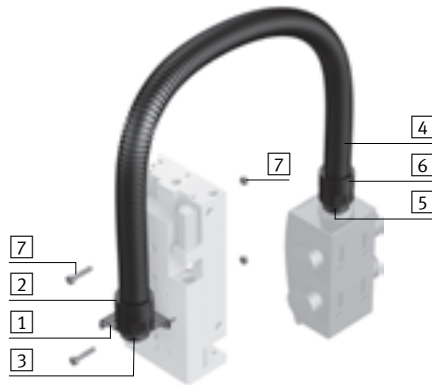
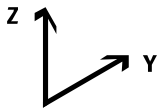
| Parts list | | | | | | |
|------------|-----------------|--------------------|--------------|-----------------|--------------|-----------------|
| Type | HMBSZ-DGSL-4 | | HMBSZ-DGSL-5 | | HMBSZ-DGSL-6 | → Page/Internet |
| For drives | DGSL-16 | | DGSL-20 | | DGSL-25 | |
| Item | Pieces | Part No.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

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

Pick & place

Z modules

Mini slides SLT



| Parts list | | | | | |
|------------|-----------------|-------------------------------|----------------------------|----------------------------|-----------------|
| Type | | HMBSZ-SLT-1 | HMBSZ-SLT-2 | HMBSZ-SLT-3 | |
| For drives | | SLT-10 | SLT-16 | SLT-20 | |
| Item | Pieces | Part No. Type | Part No. Type | Part No. Type | → Page/Internet |
| [1] | 1 | 192 289 MKRS-16,5-B | 193 124 HMZAS-PG-21 | 193 124 HMZAS-PG-21 | 103 |
| [2] | 1 | - | 177 572 MKRV-23-PG-21 | 177 572 MKRV-23-PG-21 | 96 |
| [3] | 1 | - | 177 599 MKM-PG-21 | 177 599 MKM-PG-21 | 100 |
| [4] | 1 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 | 100 |
| [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 | - |

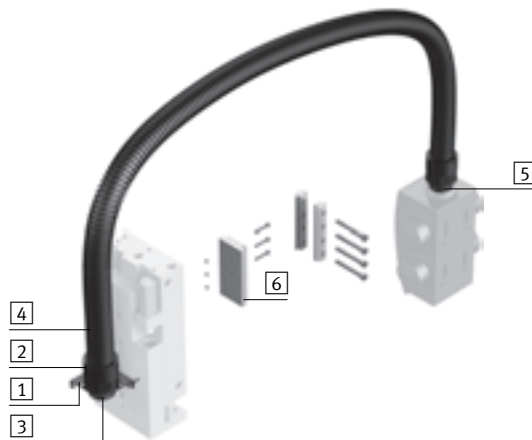
1) Length depends on the stroke of the drive (scope of delivery: 1m)

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

Pick & place

Z modules

Mini slides SLT



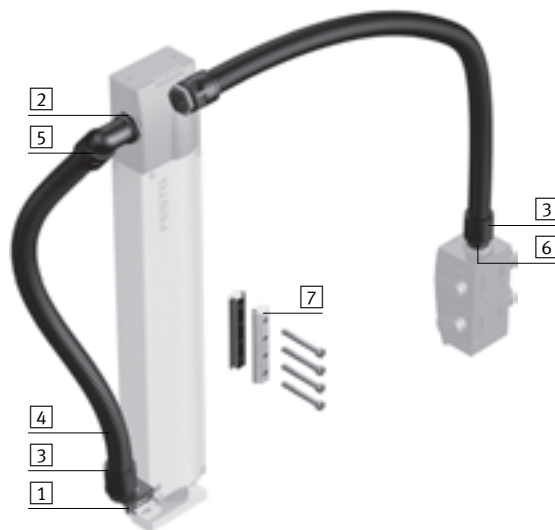
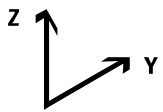
| Parts list | | | | | |
|------------|-----------------|----------------------------|----------------------------|----------------------------|-----------------|
| Type | | HMBSZ-SLT-4 | HMBSZ-SLT-5 | HMBSZ-SLT-6 | |
| For drives | | SLT-16 | SLT-20 | SLT-25 | |
| Item | Pieces | Part No. Type | Part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

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

Pick & place

Z modules

Linear modules HMP



| Parts list | | | | | |
|------------|-----------------|----------------------------|--------------------------|--------------------------|-----------------|
| Type | | HMBSZ-HMP-1 | HMBSZ-HMP-2 | HMBSZ-HMP-3 | |
| For drives | | HMP-16 | HMP-20 | HMP-25 | |
| Item | Pieces | Part No. Type | Part No. Type | Part No. Type | → Page/Internet |
| [1] | 1 | 193 124 HMZAS-PG-21 | 177 603 HMZAS-PG-29 | 177 603 HMZAS-PG-29 | 103 |
| [2] | 3 | 177 599 MKM-PG-21 | 177 600 MKM-PG-29 | 177 600 MKM-PG-29 | 100 |
| [3] | 3 | 177 572 MKRV-23-PG-21 | 177 573 MKRV-29-PG-29 | 177 573 MKRV-29-PG-29 | 96 |
| [4] | 2 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 | - | - | 100 |
| [7] | 1 | 177 647 HMSV-1 | 177 649 HMSV-3 | 177 653 HMSV-7 | 72 |

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

Linear gantries

Key features

FESTO

Y and Z modules



Y modules

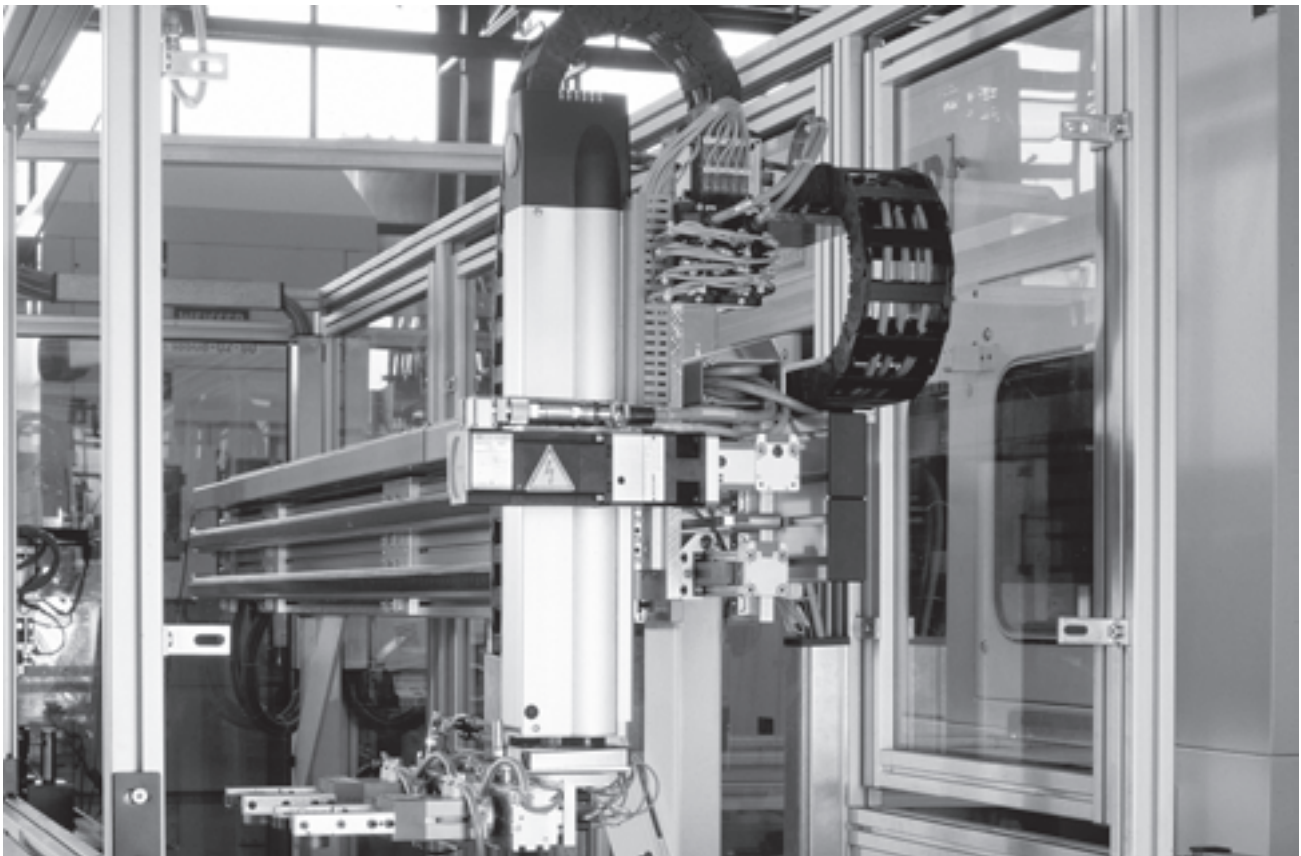
- Pneumatic: DGPL, DGC
- Pneumatic with end-position controller SPC11 (Soft Stop): DGPL
- Electric: DGE
- Single-axis systems (mono) or drives with guide axis (duo)

Z modules

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

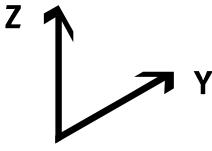



Gantry tubing and cables are routed via energy chains. Festo uses a support profile for this purpose that is specially designed for handling technology.

Application






Linear gantries

Product range overview

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

Linear gantries

Selection aid for basic, connecting and installation components

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

Selection example:

Project engineering produced the following drive combination:

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

Step 1

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

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

Step 2

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




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

Step 3

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




Linear gantries

Selection aid for basic, connecting and installation components

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




Linear gantries

Selection aid for basic, connecting and installation components

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

Linear gantries

Selection aid for basic, connecting and installation components

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

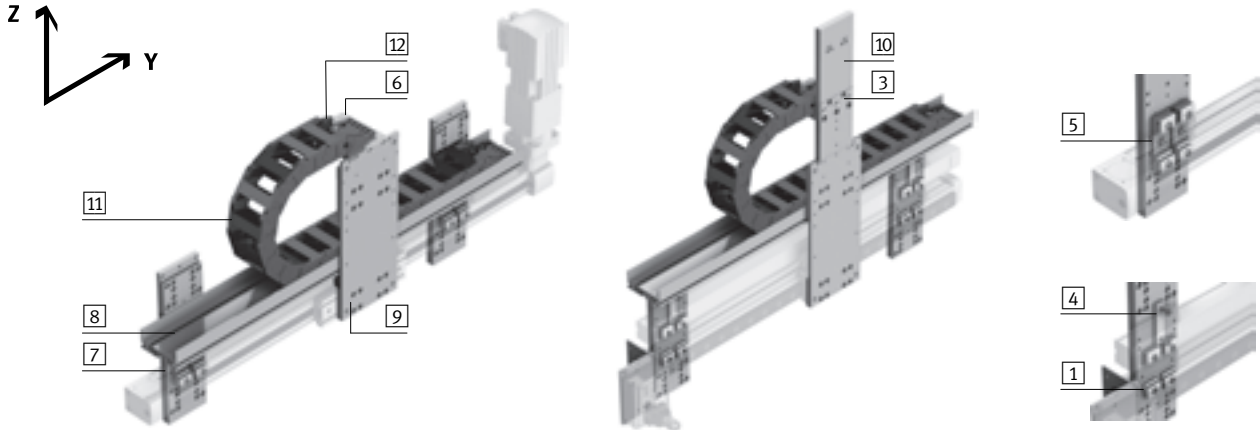
Linear gantries

Y modules

FESTO

Mono system for size 25

Toothed belt axes DGE, linear drives DGC, DGPL



| Parts list | | | | | | |
|-------------|---|---|----------------------------|----------------------------|----------------------------|---------------------|
| Type | HMBSY-LP-M25-1 | HMBSY-LP-M25-2 | HMBSY-LP-M25-3 | HMBSY-LP-M25-4 | | |
| For drives | DGPL-25 DGE-25-SP-KF DGE-25-ZR-KF | DGC-25 | DGPL-25 with SPC11 | DGE-25-ZR-RF | | |
| System type | Mono 25 | | | | | → Page/ Internet |
| Item | Pieces | Part No. Type | Part No. Type | Part No. Type | Part No. Type | |
| 1 | 2 ¹⁾ | 150 736 MUP-18/25 | – | 150 736 MUP-18/25 | 150 736 MUP-18/25 | mup |
| | 1 ¹⁾ | – | 531 753 MUC-25 | – | – | muc |
| 3 | 1 | – | – | 539 364 HMIM-LP | – | 111 |
| 4 | 1 ¹⁾ | – | – | 539 973 HMVO-POT | – | 85 |
| 5 | 2 ¹⁾ | – | – | – | 539 362 HMVO-RF25 | 85 |
| 6 | 1 | 539 366 HMIO-AP1 | 539 366 HMIO-AP1 | 539 366 HMIO-AP1 | 539 366 HMIO-AP1 | 111 |
| 7 | 2 ²⁾ | 539 972 HMVM-LP-DL25/40 | 539 972 HMVM-LP-DL25/40 | 539 972 HMVM-LP-DL25/40 | 539 972 HMVM-LP-DL25/40 | 82 |
| 8 | 1 ³⁾ | 539 378 HMIA-E05 | 539 378 HMIA-E05 | 539 378 HMIA-E05 | 539 378 HMIA-E05 | 116 |
| 9 | 1 | 539 368 HMVS-DL25 | 539 368 HMVS-DL25 | 539 368 HMVS-DL25 | 539 368 HMVS-DL25 | 84 |
| 10 | 1 | – | – | 539 365 HMIZB-E03 | – | 114 |
| 11 | 1 ³⁾ | IGUS E2 medium 2400.05.100 and 211 or ENERGY CHAIN MC 032Q.55-01-100 and TS O/n ₇ 2 | | | | – |
| 12 | 2 | IGUS E2 medium 205Q.ZB or ENERGY CHAIN MC FA/MA | | | | – |

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

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

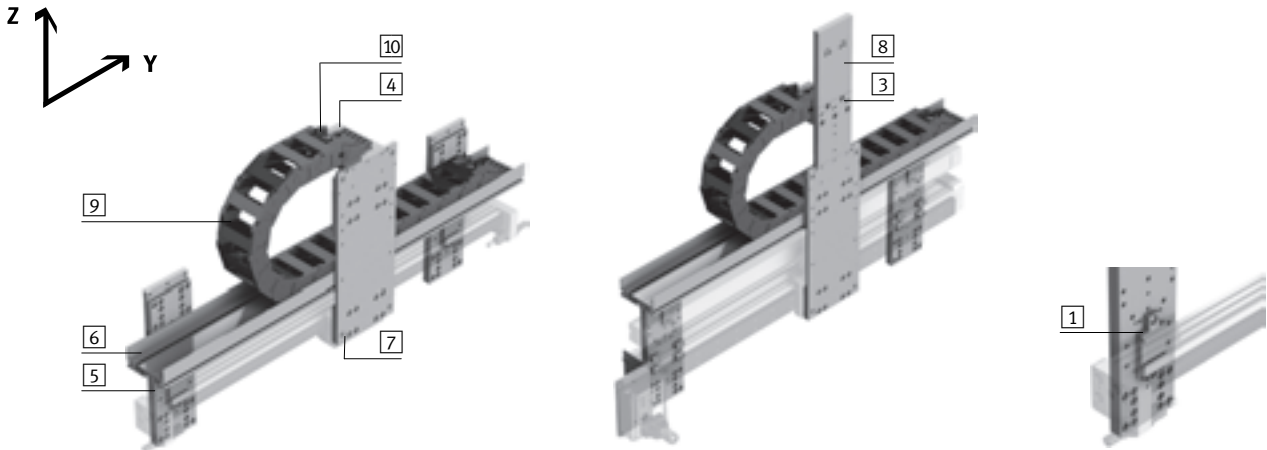
3) Length depends on the stroke of the drive

Linear gantries

Y modules

Mono system for size 40

Toothed belt axes DGE, linear drives DGC, DGPL



| Parts list | | | | | |
|-------------|---|---|----------------|----------------------------|----------------------------------|
| Type | HMBSY-LP-M40-1 | | HMBSY-LP-M40-2 | | HMBSY-LP-M40-3 |
| For drives | DGPL-40 DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF | | DGC-40 | | DGPL-40 with SPC11 |
| System type | Mono 40 | | | | → Page/ Internet |
| Item | Pieces | Part No. | Type | Part No. | Type |
| 1 | 1 ¹⁾ | – | | 531 755 MUC-40 | – muc |
| 3 | 1 | – | | – | 539 364 HMIM-LP 111 |
| 4 | 1 | 539 366 HMIO-AP-1 | | 540 121 HMIO-AP-2 | 539 366 HMIO-AP-1 111 |
| 5 | 2 ²⁾ | 539 972 HMVM-LP-DL25/40 | | 539 972 HMVM-LP-DL25/40 | 539 972 HMVM-LP-DL25/40 82 |
| 6 | 1 ³⁾ | 539 378 HMIA-E05 | | 539 378 HMIA-E05 | 539 378 HMIA-E05 116 |
| 7 | 1 | 539 369 HMVS-DL40 | | 539 369 HMVS-DL40 | 539 369 HMVS-DL40 84 |
| 8 | 1 | – | | – | 539 365 HMIZB-E03 114 |
| 9 | 1 ³⁾ | IGUS E2 medium 2400.05.100 and 211 or ENERGY CHAIN MC 032Q.55-01-100 and TS O/η ₂ | | | – |
| 10 | 2 | IGUS E2 medium 205Q.ZB or ENERGY CHAIN MC FA/MA | | | – |

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

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

3) Length depends on the stroke of the drive

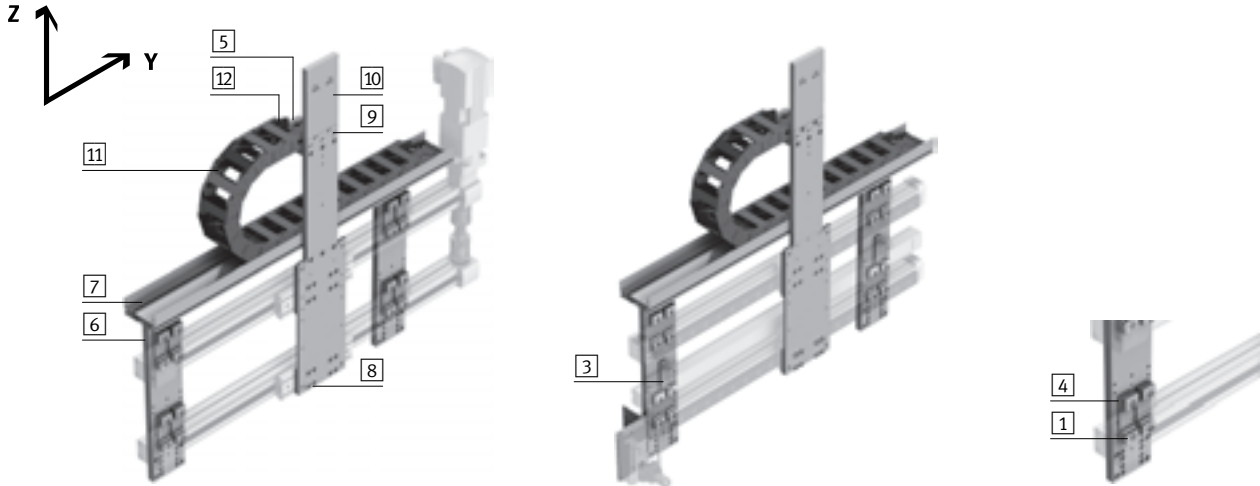
Linear gantries

Y modules

FESTO

Duo system for size 25

Toothed belt axes DGE, linear drives DGC, DGPL



| Parts list | | | | | | |
|-------------|-----------------|---|----------------------------|----------------------------|----------------------------|---------------------|
| Type | | HMBSY-LP-D25-1 | HMBSY-LP-D25-2 | HMBSY-LP-D25-3 | HMBSY-LP-D25-4 | |
| For drives | | DGPL-25 DGE-25-SP-KF DGE-25-ZR-KF | DGC-25 | DGPL-25 with SPC11 | DGE-25-ZR-RF | |
| System type | | Duo 25 | | | | → Page/ Internet |
| Item | Pieces | Part No. Type | Part No. Type | Part No. Type | Part No. Type | |
| 1 | 4 ¹⁾ | 150 736 MUP-18/25 | – | 150 736 MUP-18/25 | 150 736 MUP-18/25 | mup |
| | 2 ¹⁾ | – | 531 753 MUC-25 | – | – | muc |
| 3 | 1 ¹⁾ | – | – | 539 973 HMVO-POT | – | 85 |
| 4 | 4 ¹⁾ | – | – | – | 539 362 HMVO-RF25 | 85 |
| 5 | 1 | 539 366 HMIO-AP-1 | 539 366 HMIO-AP-1 | 539 366 HMIO-AP-1 | 539 366 HMIO-AP-1 | 111 |
| 6 | 2 ²⁾ | 539 971 HMVD-LP-DL25/40 | 539 971 HMVD-LP-DL25/40 | 539 971 HMVD-LP-DL25/40 | 539 971 HMVD-LP-DL25/40 | 82 |
| 7 | 1 ³⁾ | 539 378 HMIA-E05 | 539 378 HMIA-E05 | 539 378 HMIA-E05 | 539 378 HMIA-E05 | 116 |
| 8 | 1 | 539 368 HMVS-DL25 | 539 368 HMVS-DL25 | 539 368 HMVS-DL25 | 539 368 HMVS-DL25 | 84 |
| 9 | 1 | 539 363 HMID-LP | 539 363 HMID-LP | 539 363 HMID-LP | 539 363 HMID-LP | 112 |
| 10 | 1 | 539 365 HMIZB-E03 | 539 365 HMIZB-E03 | 539 365 HMIZB-E03 | 539 365 HMIZB-E03 | 114 |
| 11 | 1 ³⁾ | IGUS E2 medium 2400.05.100 and 211 or ENERGY CHAIN MC 032Q.55-01-100 and TS O/n ₇ 2 | | | | – |
| 12 | 2 | IGUS E2 medium 205Q.ZB or ENERGY CHAIN MC FA/MA | | | | – |

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

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

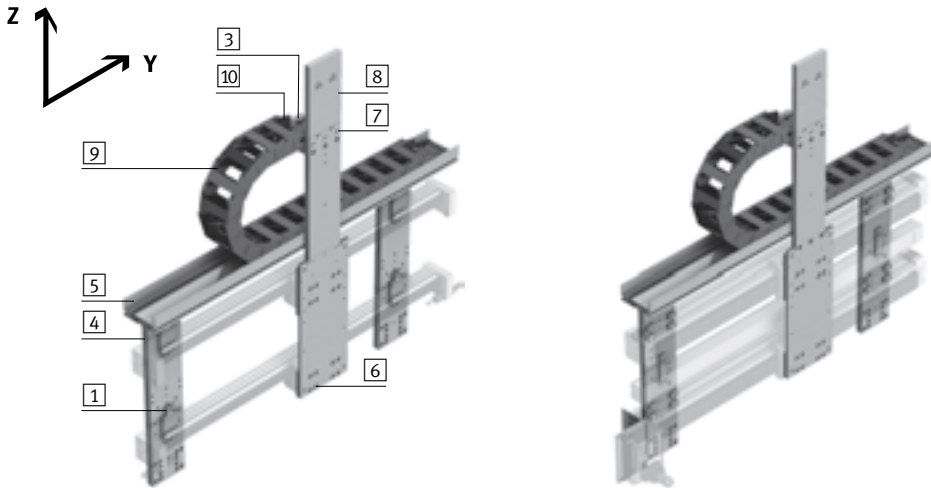
3) Length depends on the stroke of the drive

Linear gantries

Y modules

Duo system for size 40

Toothed belt axes DGE, linear drives DGC, DGPL



| Parts list | | | | | | | |
|-------------|---|---|----------------|----------------------------|--------------------|----------------------------|------|
| Type | HMBSY-LP-D40-1 | | HMBSY-LP-D40-2 | | HMBSY-LP-D40-3 | | |
| For drives | DGPL-40 DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF | | DGC-40 | | DGPL-40 with SPC11 | | |
| System type | Duo 40 | | | | | → Page/ Internet | |
| Item | Pieces | Part No. | Type | Part No. | Type | Part No. | Type |
| 1 | 2 ¹⁾ | – | | 531 755 MUC-40 | | – | muc |
| 3 | 1 | 539 366 HMIO-AP-1 | | 540 121 HMIO-AP-2 | | 539 366 HMIO-AP-1 | 111 |
| 4 | 2 ²⁾ | 539 971 HMVD-LP-DL25/40 | | 539 971 HMVD-LP-DL25/40 | | 539 971 HMVD-LP-DL25/40 | 82 |
| 5 | 1 ³⁾ | 539 378 HMIA-E05 | | 539 378 HMIA-E05 | | 539 378 HMIA-E05 | 116 |
| 6 | 1 | 539 369 HMVS-DL40 | | 539 369 HMVS-DL40 | | 539 369 HMVS-DL40 | 84 |
| 7 | 1 | 539 363 HMID-LP | | 539 363 HMID-LP | | 539 363 HMID-LP | 112 |
| 8 | 1 | 539 365 HMIZB-E03 | | 539 365 HMIZB-E03 | | 539 365 HMIZB-E03 | 114 |
| 9 | 1 ³⁾ | IGUS E2 medium 2400.05.100 and 211 or ENERGY CHAIN MC 032Q.55-01-100 and TS O/n ₇ 2 | | | | | – |
| 10 | 2 | IGUS E2 medium 2050.ZB or ENERGY CHAIN MC FA/MA | | | | | – |

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

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

3) Length depends on the stroke of the drive

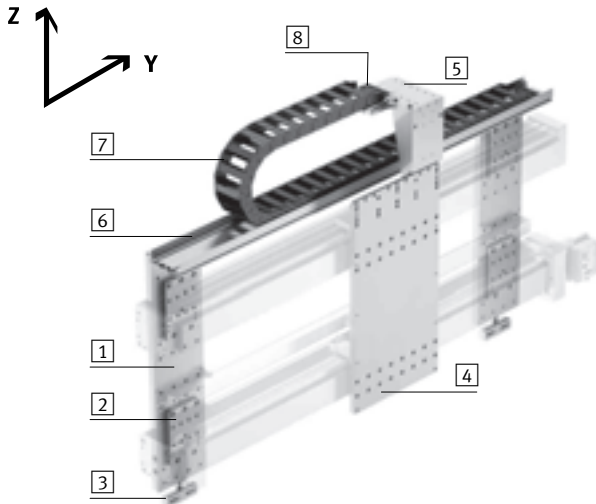
Linear gantries

Y modules

FESTO

Duo system for size 63

Toothed belt axes DGE, linear drives DGC, DGPL



| Parts list | | | | | |
|-------------|--|---|----------------|----------|---------------------|
| Type | HMBSY-LP-D50/63 | | HMBSY-LP-D50-2 | | HMBSY-LP-D63-2 |
| For drives | DGPL-50 DGPL-63 DGE-63-SP-KF DGE-63-ZR-KF DGE-63-ZR-RF | | DGC-50 | | DGC-63 |
| System type | Duo 63 | | | | → Page/ Internet |
| Item | Pieces | Part No. | Type | Part No. | Type |
| 1 | 2 ¹⁾ | 566 879 | HMVD-LP-DL63 | 566 879 | HMVD-LP-DL63 |
| 2 | 4 ²⁾ | 566 878 | HMVA-63 | – | – |
| 2 | 4 ³⁾ | – | – | 531 756 | MUC-50 |
| 3 | 2 | 566 884 | HMVE | 566 884 | HMVE |
| 4 | 1 | 566 883 | HMVS-DL63 | 566 883 | HMVS-DL63 |
| 5 | 1 | 566 886 | HMIY-LP-E07 | 566 886 | HMIY-LP-E07 |
| 6 | 1 ⁴⁾ | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 |
| 7 | 1 ⁴⁾ | IGUS E2 medium 2400.07.100 and 211 or ENERGY CHAIN MC 032Q.75-01-100 and TS O/n _T 2 | | | – |
| 8 | 2 | IGUS E2 medium 207Q.ZB or ENERGY CHAIN MC FA/MA | | | – |

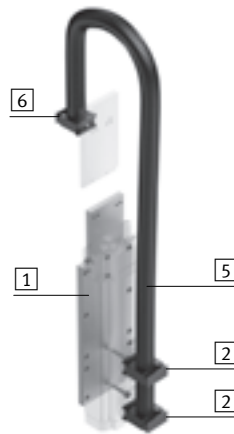
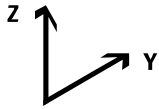
- 1) Quantity with stroke $\leq 1,000$ mm. With stroke > 1,000 mm, a basic kit HMVD-LP-DL63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 2) Quantity with stroke $\leq 1,000$ mm. With stroke > 1,000 mm, two adapter kits HMVA-63 must be additionally ordered per 1,000 mm stroke or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

Linear gantries

Z modules

Mono/duo system

Mini slides DGSL



| Parts list | | | | | | | | |
|-------------|-----------------|--------------|-------------------|----------|----------------|----------|--------------|---------------------|
| Type | | HMBSZ-DGSL-7 | | | HMBSZ-DGSL-8 | | | → Page/ Internet |
| For drives | | DGSL-12 | DGSL-16 | DGSL-20 | DGSL-25 | | | |
| System type | | Mono 25 | Mono 40 Duo 25 | Duo 25 | Duo 40 | | | |
| Item | Pieces | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 1 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 539 373 | HMVZ-2 | 83 |
| 2 | 1 | 192 289 | MKRS-16,5-B | 192 289 | MKRS-16,5-B | 192 290 | MKRS-23-B | 102 |
| | | 548 803 | ZBV-M5-7 | 548 803 | ZBV-M5-7 | 548 804 | ZBV-M5-9 | 71 |
| 5 | 1 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 | 102 |
| | | | | | | | | |

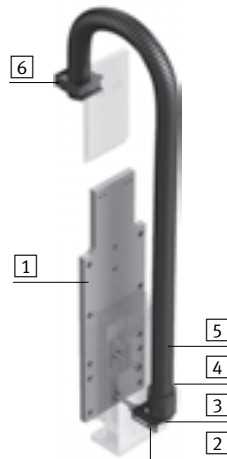
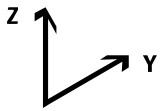
1) Length depends on the stroke of the drive (scope of delivery: 1m)

Linear gantries

Z modules

Mono/duo system

Mini slides SLT



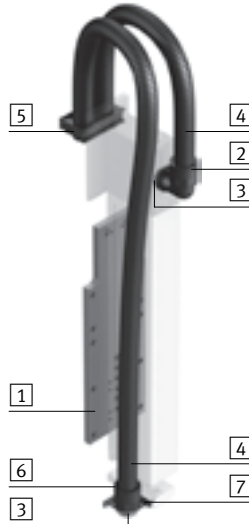
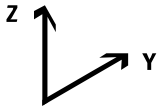
| Parts list | | | | | | → Page/ Internet | | |
|-------------|-----------------|--------------------------|--------|--------------------------|------|--------------------------|------|-----|
| Type | HMBSZ-SLT-7 | | | | | | | |
| For drives | SLT-16 | SLT-20 | SLT-25 | | | | | |
| System type | Mono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

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

Linear gantries

Z modules

Mono/duo system
Linear modules HMP



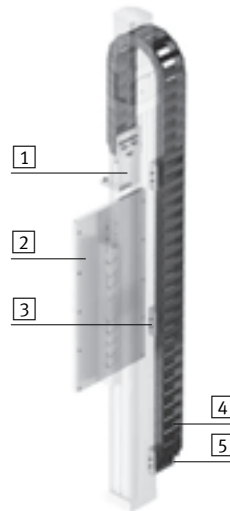
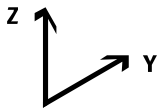
| Parts list | | | | | | |
|------------|-----------------|--------------------------|-------------|--------------------------|------|---------------------|
| Type | | HMBSZ-HMP-4 | HMBSZ-HMP-5 | HMBSZ-HMP-6 | | |
| | For drives | HMP-16 | HMP-20 | HMP-25/HMP-32 | | |
| | System type | Mono 40 Duo 25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

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

Linear gantries

Z modules

Mono/duo system
Linear drives DGPL



| Parts list | | | | | |
|-------------|-----------------|--|-----------------------|--|-----|
| Type | | HMBSZ-DL40-63/DA40 | | HMBSZ-DL40-63/DA40 | |
| For drives | | DGPL-40 | | DGPL-50 DGPL-63 | |
| System type | | Duo 40 | | Duo 63 | |
| Item | Pieces | Part No. | Type | Part No. Type | |
| 1 | 1 | 566 885 | HMIW-E05/E07 | 566 885 HMIW-E05/E07 | 115 |
| 2 | 1 | 566 876 | HMVZ-9 | 566 876 HMVZ-9 | 83 |
| 3 | 3 ¹⁾ | 566 877 | HMIZW-E05/E07-DL40/63 | 566 877 HMIZW-E05/E07-DL40/63 | 115 |
| 4 | 1 ²⁾ | IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 032Q.55-01-77 and TS O/n _T 2 | | IGUS E2 medium 2400.05.100.0 and 211 or ENERGY CHAIN MC 032Q.55-01-77 and TS O/n _T 2 | - |
| 5 | 1 | IGUS E2 medium 205Q.ZB or ENERGY CHAIN MC FA/MA | | IGUS E2 medium 205Q.ZB or ENERGY CHAIN MC FA/MA | - |
| 4 | 1 ²⁾ | IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 032Q.75-01-77 and TS O/n _T 2 | | IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 032Q.75-01-77 and TS O/n _T 2 | - |
| 5 | 2 | IGUS E2 medium 207Q.ZB or ENERGY CHAIN MC FA/MA | | IGUS E2 medium 207Q.ZB or ENERGY CHAIN MC FA/MA | - |

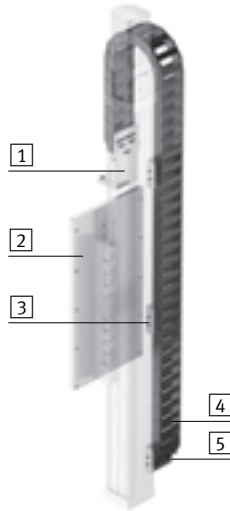
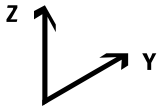
- 1) The energy chain must be supported at least every 500 mm beyond the flexible bend. Increase the quantity accordingly if necessary.
2) Length depends on the stroke of the drive

Linear gantries

Z modules

Mono/duo system

Linear drives DGC



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

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

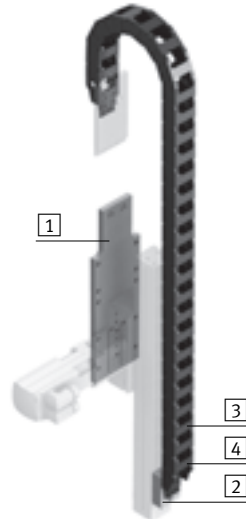
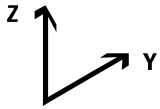
2) Length depends on the stroke of the drive

Linear gantries

Z modules

Mono/duo system

Cantilever axes DGEA



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

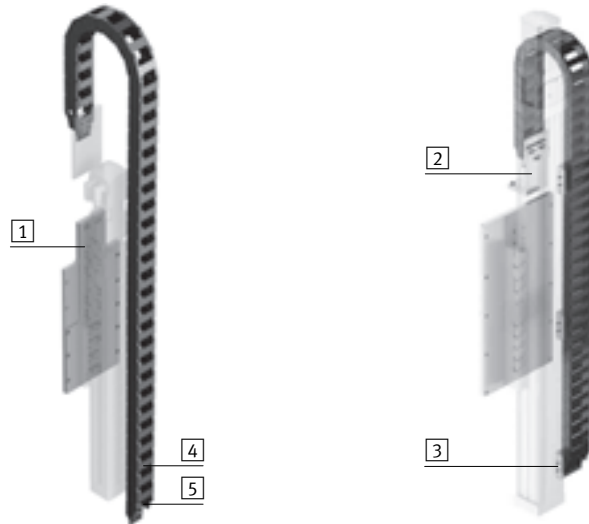
1) Length depends on the stroke of the drive

Linear gantries

Z modules

Mono/duo system

Spindle axes DGE



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

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

2) Length depends on the stroke of the drive

Three-dimensional gantries

Key features

FESTO

X, Y and Z modules



Y modules

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



Z modules

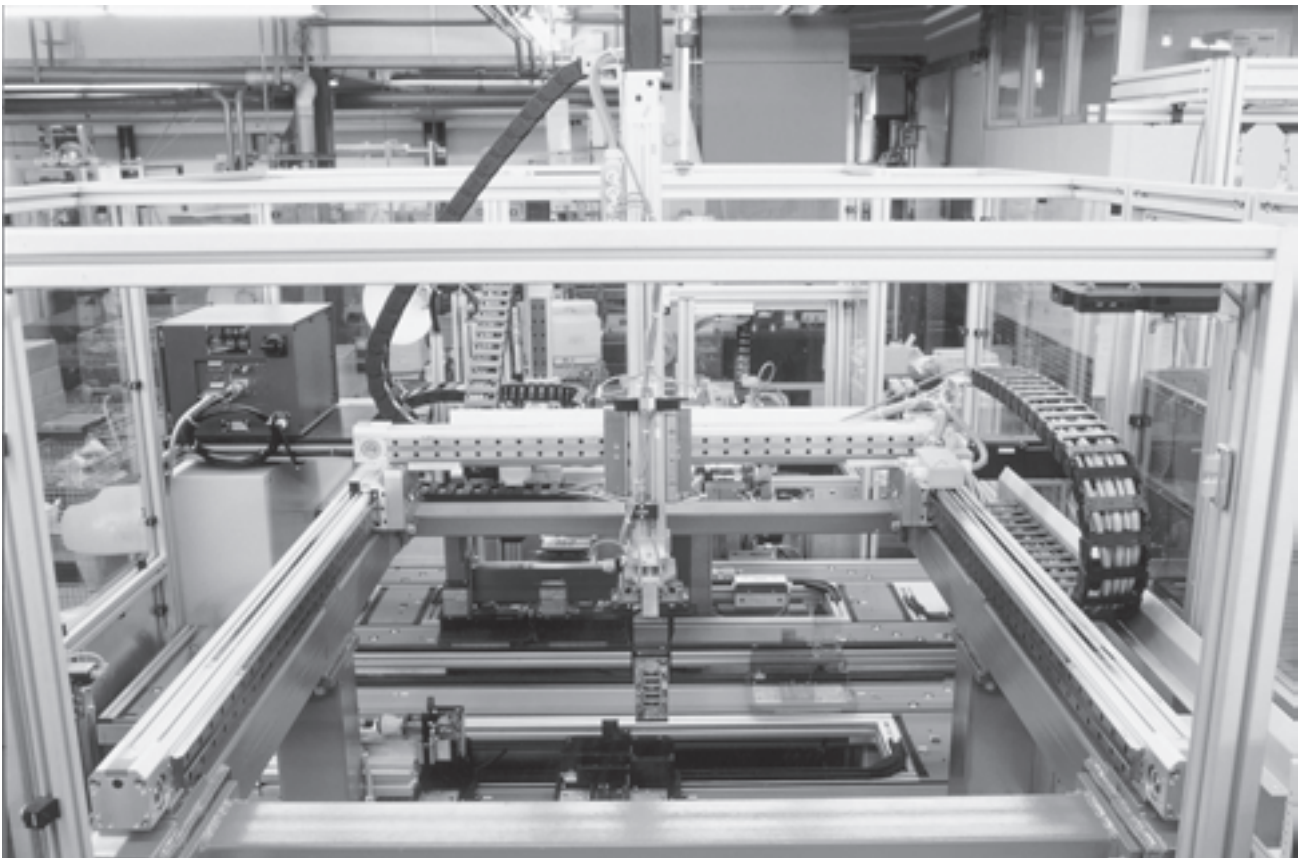
- Pneumatic: DGSL, SLT, HMP, DGC, DGPL
- Electric: DGE, DGEA

X modules

- Electric: DGE

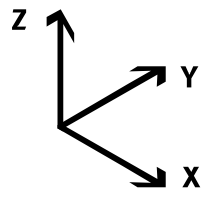









The components in the multi-axis modular system consist mainly of aluminium plates that are connected to each other and attached to the drives using screw connections and slot nut connectors. This permits fast and easy assembly.

Application



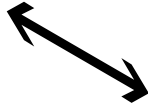


Three-dimensional gantries

Product range overview

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

Three-dimensional gantries

Selection aid for basic, connecting and installation components

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

Selection example:

Project engineering produced the following drive combination:

Step 1

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

Step 2

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

Step 3

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

X-axis: DGE-40-ZR-KF

X-axis: HMBSX-RP/FP-40-1
→ 46

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

Y-axis: Mono 40 system with DGC-40

Y-axis: HMBSY-RP/FP-M40-2
→ 48

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

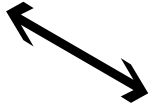


Z-axis: HMP-16

Z-axis: HMBSZ-HMP-4
→ 54

Z-axis: HMBSZ-HMP-4




Three-dimensional gantries

Selection aid for basic, connecting and installation components

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




Three-dimensional gantries

Selection aid for basic, connecting and installation components

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




Three-dimensional gantries

Selection aid for basic, connecting and installation components

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




Three-dimensional gantries

Selection aid for basic, connecting and installation components

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

Three-dimensional gantries

Selection aid for basic, connecting and installation components

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

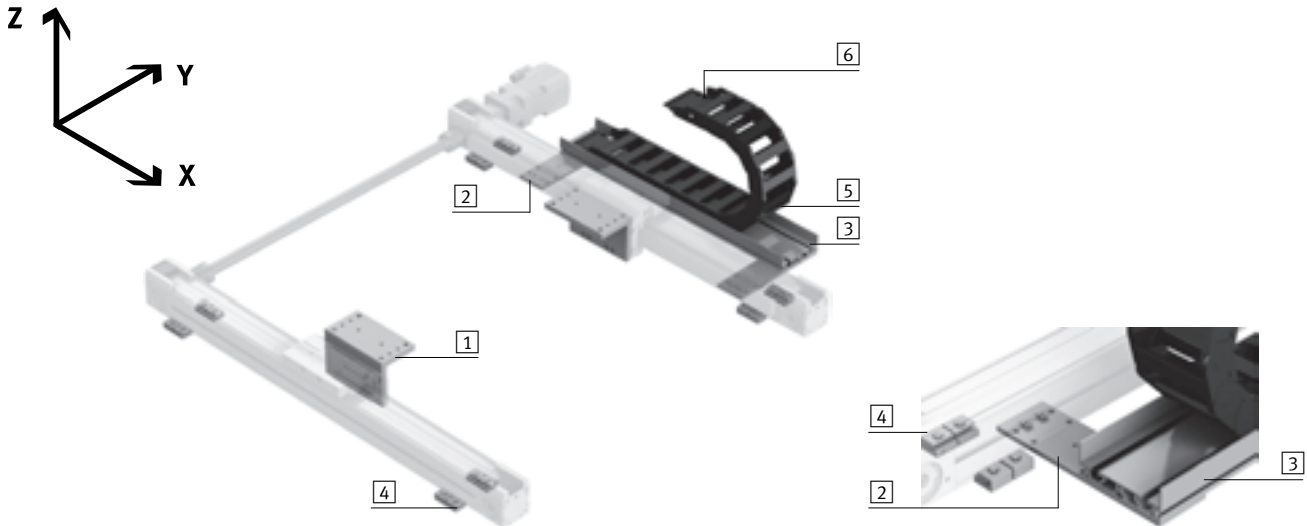
Three-dimensional gantries

X modules

FESTO

Basic system for size 25 and 40

Toothed belt axes DGE



| Parts list | | | | | | |
|------------|-----------------|--|------------------------|------------------------|------------------------|---------------------|
| Type | | HMBSX-RP/FP-25-1 | HMBSX-RP/FP-25-2 | HMBSX-RP/FP-40-1 | HMBSX-RP/FP-40-2 | → Page/ Internet |
| For drives | | DGE-25-ZR-KF | DGE-25-ZR-RF | DGE-40-ZR-KF | DGE-40-ZR-RF | |
| Item | Pieces | Part No. Type | Part No. Type | Part No. Type | Part No. Type | |
| 1 | 2 | 539 651 HMVW-DL25 | 539 652 HMVS-RF25 | 540 325 HMVW-DL40 | 539 653 HMVS-RF40 | 80 |
| 2 | 2 ¹⁾ | 539 654 HMIXB-RP/FP | 539 654 HMIXB-RP/FP | 539 654 HMIXB-RP/FP | 539 654 HMIXB-RP/FP | 110 |
| 3 | 1 ²⁾ | 539 379 HMIA-E07 | 539 379 HMIA-E07 | 539 379 HMIA-E07 | 539 379 HMIA-E07 | 116 |
| 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 2400.07.100.0 and 211 or ENERGY CHAIN MC 032Q.75-01 and TS O/nT2 | | | | - |
| 6 | 2 | IGUS E2 medium 207Q.ZB or ENERGY CHAIN MC FA/MA | | | | - |

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

2) Length depends on the stroke of the drive

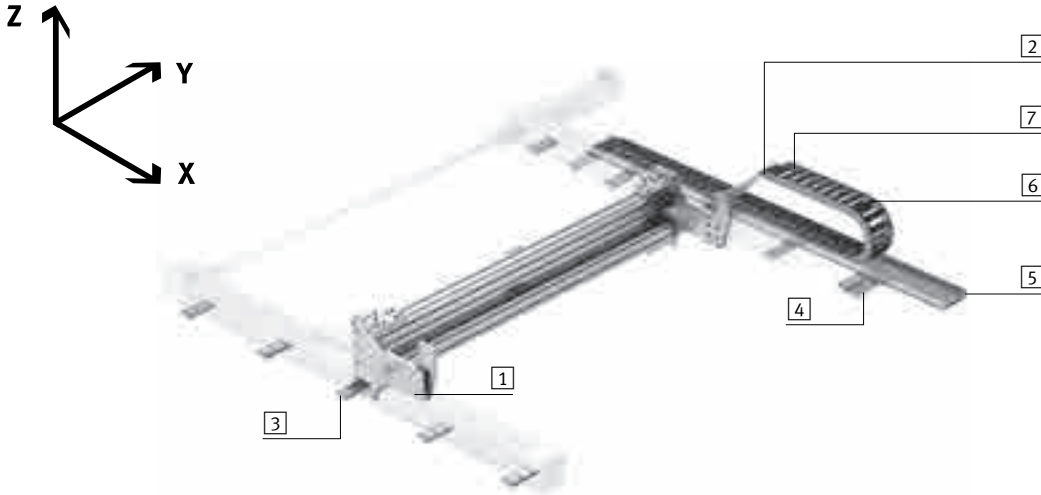
3) Every 500 mm per axis

Three-dimensional gantries

X modules

Basic system for size 63

Toothed belt axes DGE



| Parts list | | | | | | | | |
|------------|------------------|--|------------------|----------|------------------|---|---------------------|-----|
| Type | HMBSX-RP/FP-63-1 | | HMBSX-RP/FP-63-2 | | HMBSX-RP/FP-63-3 | | → Page/ Internet | |
| For drives | DGE-63-ZR-KF | | DGE-63-ZR-RF | | DGE-63-ZR-KF | | | |
| Item | Pieces | Part No. | Type | Part No. | Type | Part No. | Type | |
| 1 | 2 | 566 897 | HMVW-DL-63-1 | 566 898 | HMVS-RF63 | 566 890 | HMVW-DL-63-2 | 80 |
| 2 | 1 | 566 896 | HMIXF-RP/FP-2 | 566 896 | HMIXF-RP/FP-2 | 566 891 | HMIX-RP/FP-E07/E10 | 110 |
| 3 | 4 ¹⁾ | 150 800 | MUP-63 | 150 800 | MUP-63 | 150 800 | MUP-63 | mup |
| 4 | 2 ²⁾ | 566 893 | HMIXB-RP/FP-2 | 566 893 | HMIXB-RP/FP-2 | 566 893 | HMIXB-RP/FP-2 | 110 |
| 5 | 1 ³⁾ | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 116 |
| 5 | 1 ³⁾ | - | - | - | - | 566 894 | HMIA-E10 | 116 |
| 6 | 1 ³⁾ | IGUS E2 medium 2400.07.100.0 and 211 or ENERGY CHAIN MC 032Q.75-01 and TS O/n _T 2 | | | | | - | - |
| 7 | 2 | IGUS E2 medium 207Q.ZB or ENERGY CHAIN MC FA/MA | | | | | - | - |
| 6 | 1 ³⁾ | - | | | | IGUS E2 medium 2400.10.100.0 and 211 or ENERGY CHAIN MC 032Q.105-01 and TS O/n _T 2 | - | - |
| 7 | 2 | - | | | | IGUS E2 medium 210Q.ZB or ENERGY CHAIN MC FA/MA | - | - |

1) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, two central supports MUP must be additionally ordered per 500 mm stroke or part thereof.

2) Quantity with stroke ≤ 1,000 mm. With stroke > 1,000 mm, an installation kit HMIXB-RP/FP must be additionally ordered per 1,000 mm stroke or part thereof.

3) Length depends on the stroke of the drive

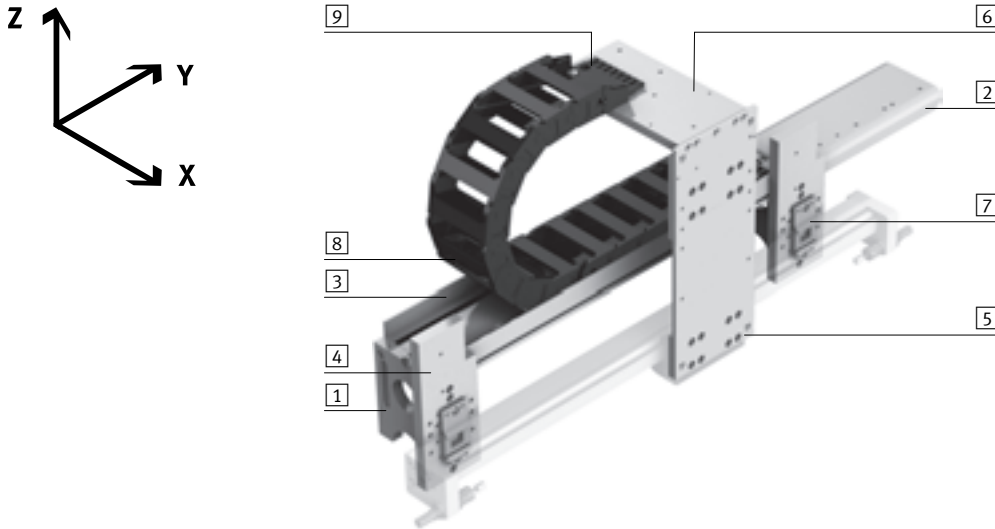
Three-dimensional gantries

Y modules

FESTO

Mono system for size 25 and 40

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



| Parts list | | | | | | | | |
|-------------|---|--|--------------------|----------|---|----------|--------------------|---------------------|
| Type | HMBSY-RP/FP-M25-1 | | HMBSY-RP/FP-M25-2 | | HMBSY-RP/FP-M40-1 | | HMBSY-RP/FP-M40-2 | |
| For drives | DGE-25-SP-KF DGE-25-ZR-KF DGE-25-ZR-RF DGPL-25 | | DGC-25 | | DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF DGPL-40 | | DGC-40 | |
| System type | Mono 25 | | | | Mono 40 | | | |
| Item | Pieces | Part No. | Type | Part No. | Type | Part No. | Type | → Page/ Internet |
| 1 | 2 | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 81 |
| 2 | 1 | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 81 |
| 3 | 1 ¹⁾ | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 116 |
| 4 | 2 ³⁾ | 539 656 | HMVM-RP/FP-DL25/40 | 539 656 | HMVM-RP/FP-DL25/40 | 539 656 | HMVM-RP/FP-DL25/40 | 82 |
| 5 | 1 | 539 368 | HMVS-DL25 | 539 368 | HMVS-DL25 | 539 369 | HMVS-DL40 | 84 |
| 6 | 1 | 539 659 | HMIYF-RF/DL25 | 539 659 | HMIYF-RF/DL25 | 539 660 | HMIYF-RF/DL40 | 113 |
| 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 2400.07.100.0 and 211 or ENERGY CHAIN MC 032Q.75-01 and TS O/n _T 2 | | | | | | - |
| 9 | 2 | IGUS E2 medium 207Q.ZB or ENERGY CHAIN MC FA/MA | | | | | | - |

1) Length depends on the stroke of the drive

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

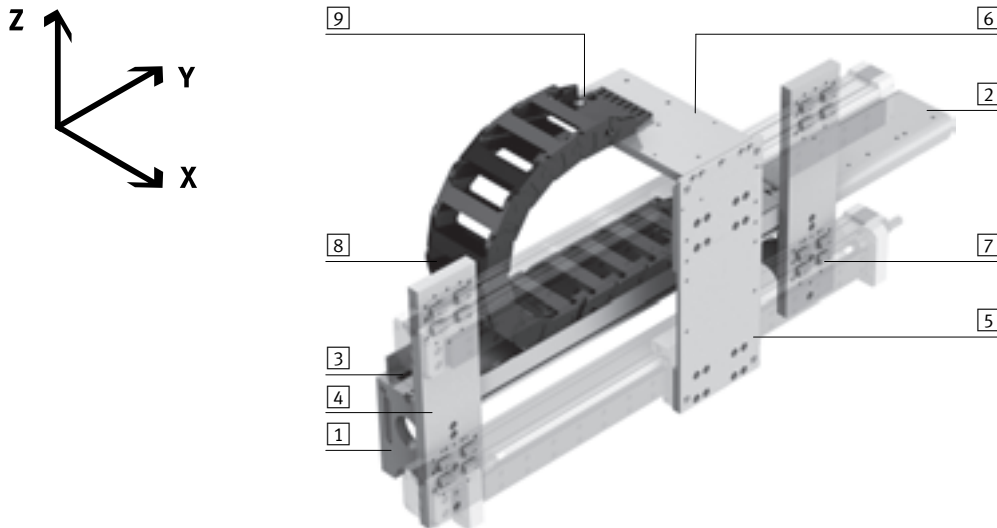
3) Quantity with stroke ≤ 500 mm. With stroke > 500 mm, a basic kit HMVM-RP/FP-DL25/40 must be additionally ordered per 500 mm stroke or part thereof.

Three-dimensional gantries

Y modules

Duo system for size 25 and 40

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



| Parts list | | | | | | | | |
|-------------|---|--|--------------------|----------|---|----------|--------------------|---------------------|
| Type | HMBSY-RP/FP-D25-1 | | HMBSY-RP/FP-D25-2 | | HMBSY-RP/FP-D40-1 | | HMBSY-RP/FP-D40-2 | |
| For drives | DGE-25-SP-KF DGE-25-ZR-KF DGE-25-ZR-RF DGPL-25 | | DGC-25 | | DGE-40-SP-KF DGE-40-ZR-KF DGE-40-ZR-RF DGPL-40 | | DGC-40 | |
| System type | Duo 25 | | | | Duo 40 | | | |
| Item | Pieces | Part No. | Type | Part No. | Type | Part No. | Type | → Page/ Internet |
| 1 | 2 | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 539 657 | HMVV-RP/FP | 81 |
| 2 | 1 | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 539 658 | HMIXF-RP/FP | 81 |
| 3 | 1 ¹⁾ | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 539 379 | HMIA-E07 | 116 |
| 4 | 2 ³⁾ | 539 655 | HMVD-RP/FP-DL25/40 | 539 655 | HMVD-RP/FP-DL25/40 | 539 655 | HMVD-RP/FP-DL25/40 | 82 |
| 5 | 1 | 539 368 | HMVS-DL25 | 539 368 | HMVS-DL25 | 539 369 | HMVS-DL40 | 84 |
| 6 | 1 | 539 659 | HMIYF-RF/DL25 | 539 659 | HMIYF-RF/DL25 | 539 660 | HMIYF-RF/DL40 | 113 |
| 7 | 4 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 032Q.75-01 and TS O/ηT2 | | | | | | - |
| 9 | 2 | IGUS E2 medium 207Q.ZB or ENERGY CHAIN MC FA/MA | | | | | | - |

1) Length depends on the stroke of the drive

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

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

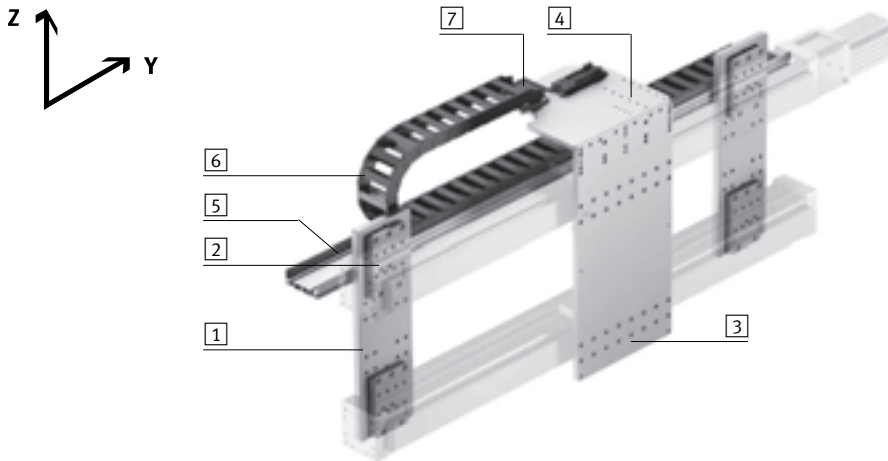
Three-dimensional gantries

Y modules

FESTO

Duo system for size 63

Toothed belt/spindle axes DGE, linear drives DGPL



| Parts list | | | | | | |
|-------------|--|--|-------------------|---------------------|-----------------|-----|
| Type | HMBSY-RP/FP-D50/63 | | HMBSY-RP/FP-D50-2 | | | |
| For drives | DGPL-50 DGPL-63 DGE-63-SP-KF DGE-63-ZR-KF DGE-63-ZR-RF | | DGC-50 | | | |
| System type | Duo 63 | | | → Page/ Internet | | |
| Item | Pieces | Part No. | Type | Part No. | Type | |
| [1] | 2 ¹⁾ | 566 880 | HMVD-RP/FP-DL63 | 566 880 | HMVD-RP/FP-DL63 | 82 |
| [2] | 4 ²⁾ | 566 878 | HMVA-63 | – | | 84 |
| [2] | 4 ³⁾ | – | | 531 756 | MUC-50 | muc |
| [3] | 1 | 566 883 | HMVS-DL63 | 566 883 | HMVS-DL63 | 84 |
| [4] | 1 | 566 889 | HMIY-RP/FP-E07 | 566 889 | HMIY-RP/FP-E07 | 114 |
| [5] | 1 ⁴⁾ | 539 379 | HMIA-E07-... | 539 379 | HMIA-E07-... | 116 |
| [6] | 1 ⁴⁾ | IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 0320.75-01 and TS O/ηT2 | | | | – |
| [7] | 2 | IGUS E2 medium 2070.ZB or ENERGY CHAIN MC FA/MA | | | | – |
| – | 2 | 175 958 | HMBS-80/80 | | | 62 |
| – | 1 ⁵⁾ | 566 892 | HMVD-DL40/63 | | | 86 |

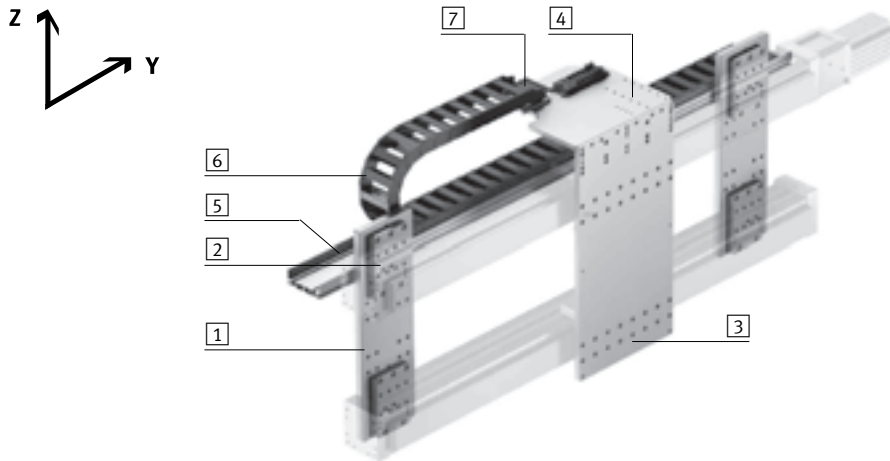
- 1) Quantity with stroke $\leq 1,000$ mm. With stroke > 1,000 mm, a basic kit HMVD-RP/FP-DL63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 2) Quantity with stroke $\leq 1,000$ mm. With stroke > 1,000 mm, two adapter kits HMVA-63 must be additionally ordered per 1,000 mm stroke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

Three-dimensional gantries

Y modules

Duo system for size 63

Linear drives DGC



| Parts list | | | | |
|-------------|-------------------|---|-----------------|---------------------|
| Type | HMBSY-RP/FP-D63-2 | | | → Page/ Internet |
| For drives | DGC-63 | | | |
| System type | Duo 63 | | | |
| Item | Pieces | Part No. | Type | |
| 1 | 2 ¹⁾ | 566 880 | HMVD-RP/FP-DL63 | 82 |
| 2 | 4 ²⁾ | 531 757 | MUC-63 | muc |
| 3 | 1 ³⁾ | 566 883 | HMVS-DL63 | 84 |
| 4 | 1 | 566 889 | HMIY-RP/FP-E07 | 114 |
| 5 | 1 ⁴⁾ | 539 379 | HMIA-E07-... | 116 |
| 6 | 1 ⁴⁾ | IGUS E2 medium 240.07.100.0 and 211 or ENERGY CHAIN MC 032Q.75-01 and TS O/n _T 2 | | - |
| 7 | 2 | IGUS E2 medium 207Q.ZB or ENERGY CHAIN MC FA/MA | | - |
| - | 2 | 175 958 | HMBS-80/80 | 62 |
| - | 1 ⁵⁾ | 566 892 | HMVD-DL40/63 | 86 |

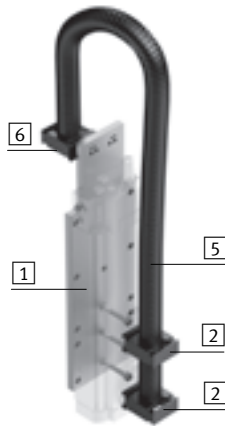
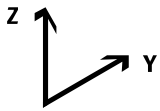
- 1) Quantity with stroke $\leq 1,000$ mm. With stroke > 1,000 mm, a basic kit HMVD-RP/FP-DL63 must be additionally ordered per 1,000 mm stroke or part thereof.
- 2) Quantity with stroke $\leq 1,000$ mm. With stroke > 1,000 mm, two adapter kits HMVA-63 must be additionally ordered per 1,000 mm stroke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

Three-dimensional gantries

Z modules

Mono/duo system

Mini slides DGSL



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

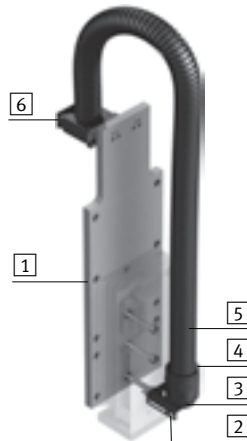
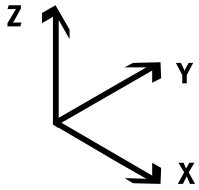
1) Length depends on the stroke of the drive (scope of delivery: 1m)

Three-dimensional gantries

Z modules

Mono/duo system

Mini slides SLT



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

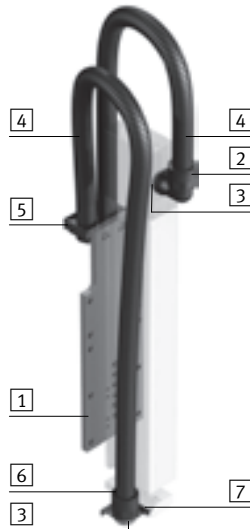
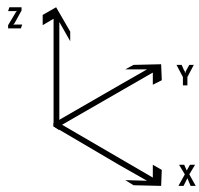
1) Length depends on the stroke of the drive (scope of delivery: 1m)

Three-dimensional gantries

Z modules

Mono/duo system

Linear modules HMP



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

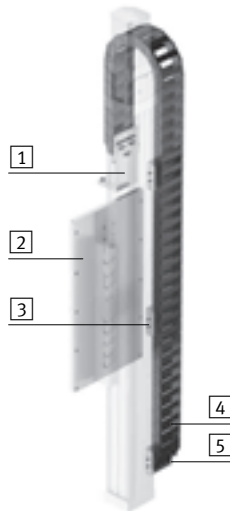
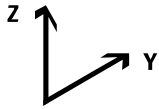
1) Length depends on the stroke of the drive (scope of delivery: 1m)

Three-dimensional gantries

Z modules

Mono/duo system

Linear drives DGPL



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

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

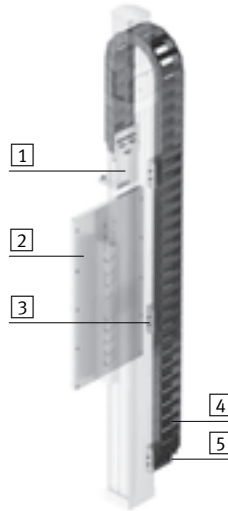
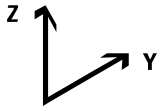
Three-dimensional gantries

Z modules

FESTO

Mono/duo system

Linear drives DGC



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

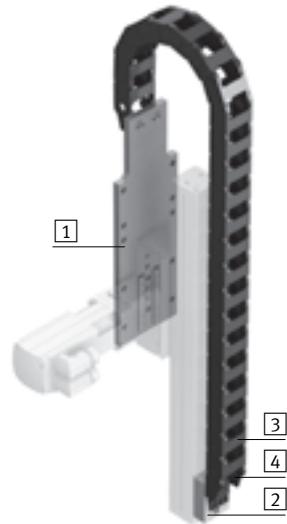
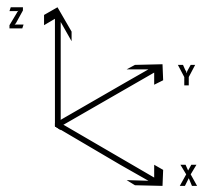
1) The energy chain must be supported at least every 500 mm beyond the flexible bend. Increase the quantity accordingly if necessary.

2) Length depends on the stroke of the drive

Three-dimensional gantries

Z modules

Mono/duo system
Cantilever axes DGEA



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

1) Length depends on the stroke of the drive

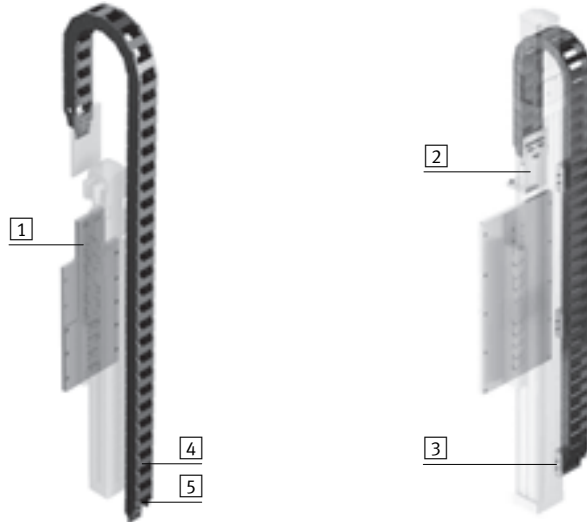
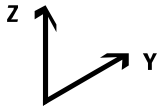
Three-dimensional gantries

Z modules

FESTO

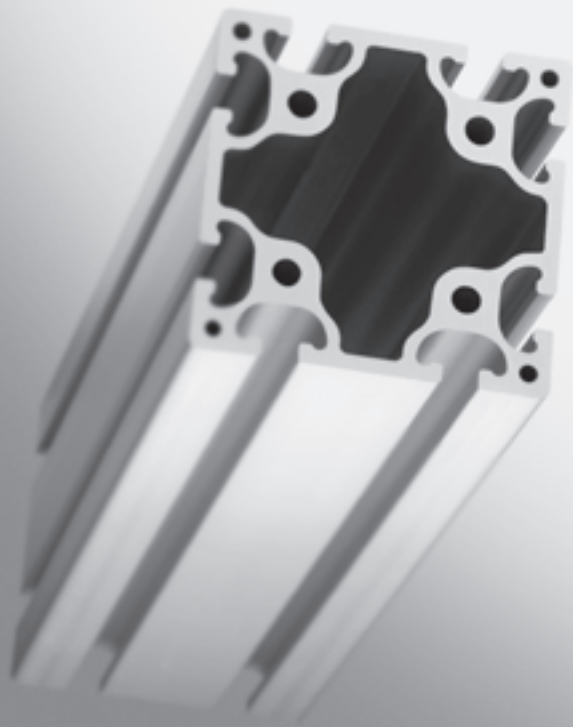
Mono/duo system

Spindle axes DGE



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

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

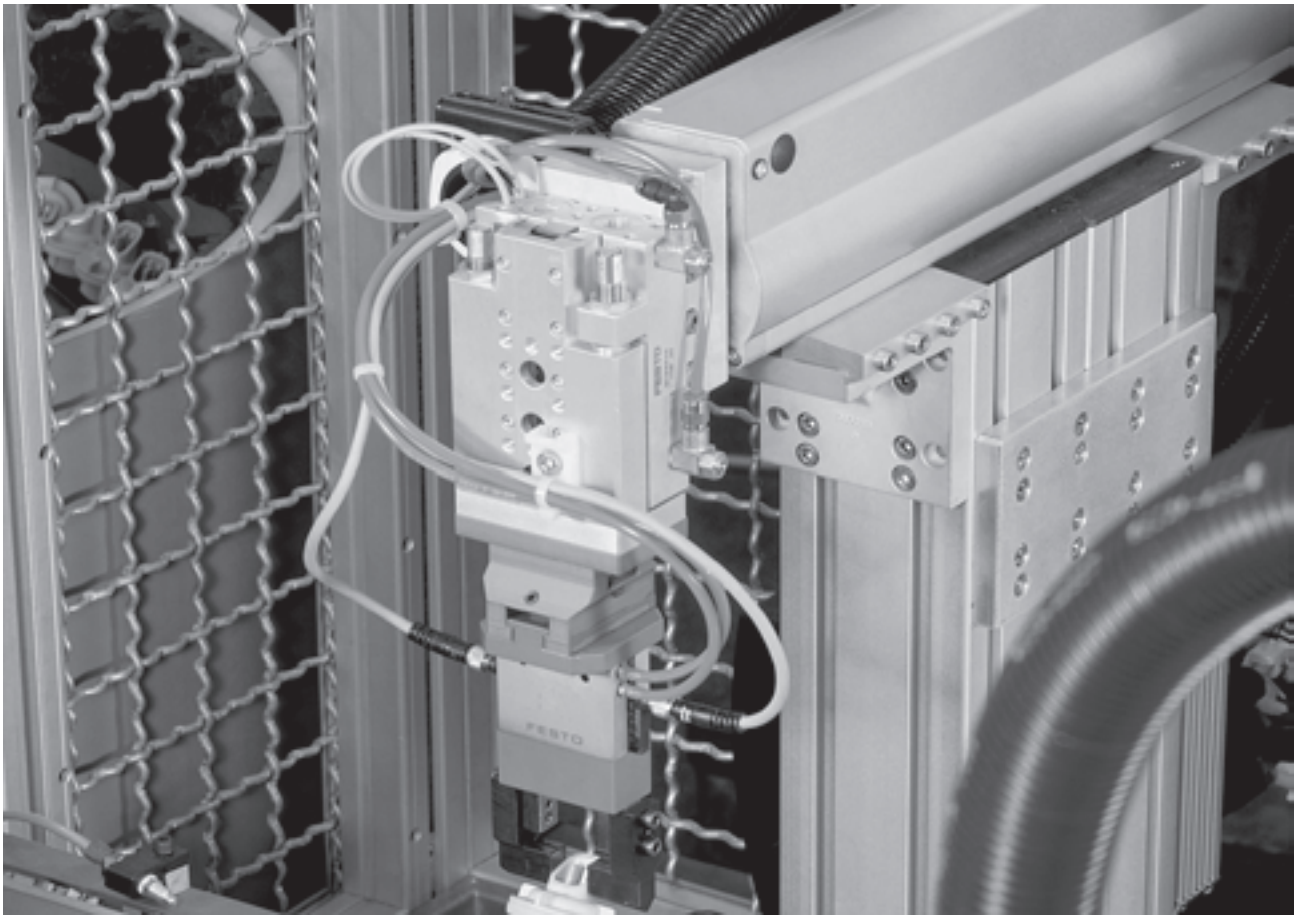


- Wide range of variants
- Heavy-duty
- Functional
- Flexible

Basic components

Key features

FESTO



Basic kits

Profile column HMBS

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

Cover cap HMBSA

For covering the end faces of profile columns HMBS.

Connecting kit HMBSV

For connecting 2 to 3 profile columns HMBS.

Connecting kit HMBSW

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

Basic kit HMBF-DB

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

Connecting kit HMBWS

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

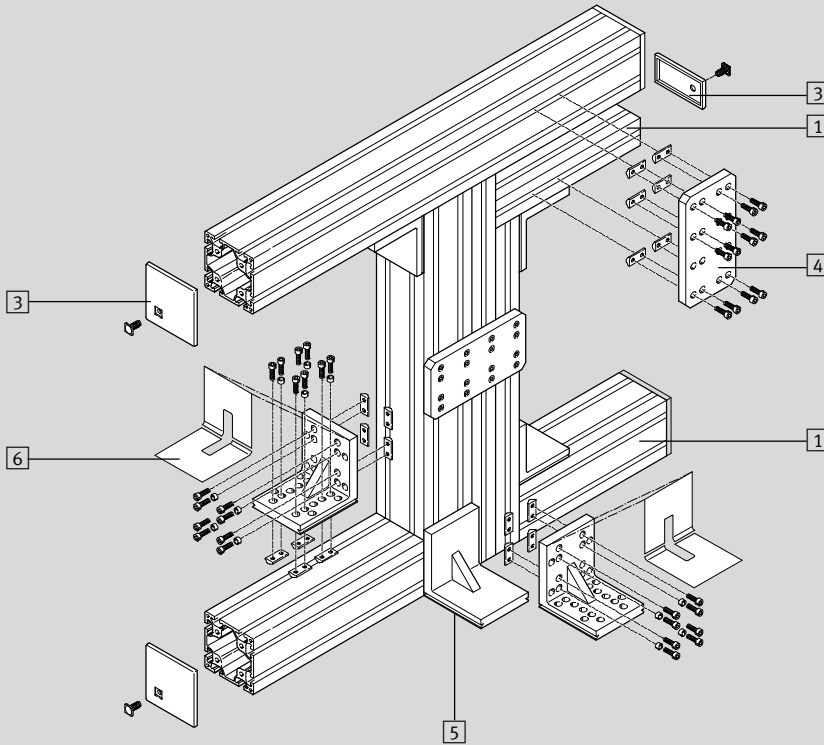
Connecting kit HMBV-ND

Interface for connecting basic components to Festo drives.

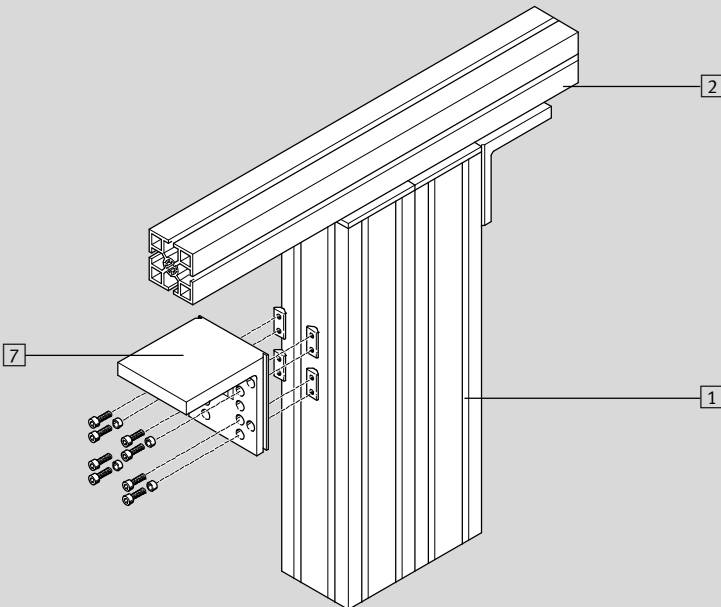
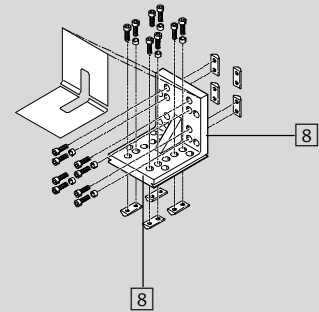
Basic components

Key features

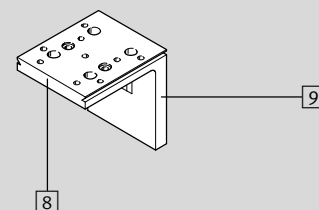
An optimum concept with multiple functionalities



6 Connecting kit HMBSW



7 Connecting kit HMBWS



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

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

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

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

Basic components

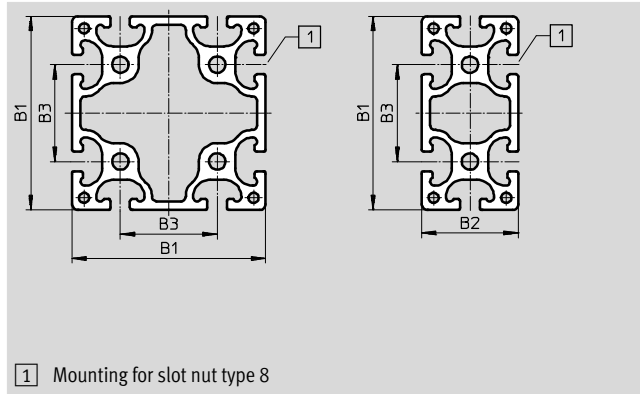
Technical data



Profile column HMBS

Scope of delivery:
1 column

Material:
Aluminium
Free of copper, PTFE and silicone



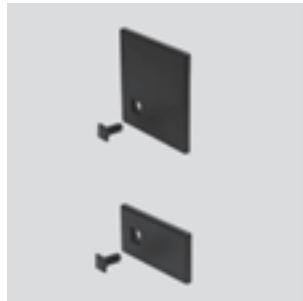
| Dimensions and ordering data | | | | | | | |
|--|----|----|----|-------------------|----------|------------|------------------|
| Designation | B1 | B2 | B3 | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| Profile column | 80 | 40 | 40 | 2 | 175 964 | HMBS-80/40 | 1 |
| | 80 | – | 40 | | 175 958 | HMBS-80/80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

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

Cover cap HMBSA

Scope of delivery:
1 cover, 1 plug

Material:
Polyacetal
Free of copper, PTFE and silicone



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

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

Basic components

Technical data



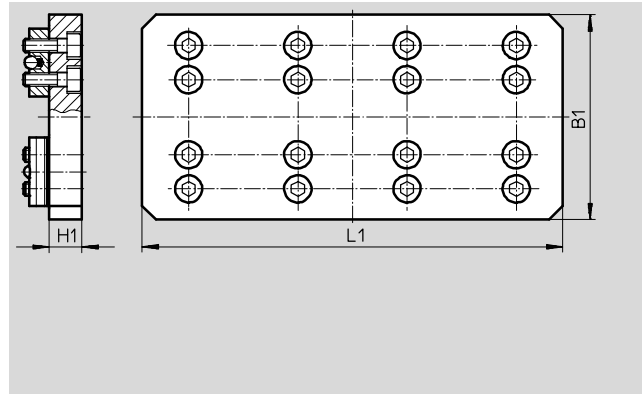
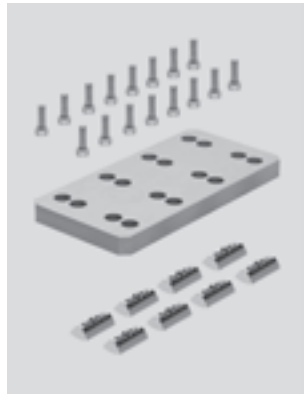
Connecting kit HMBSV

Scope of delivery:

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

Material:

- Aluminium
- Free of copper, PTFE and silicone



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

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

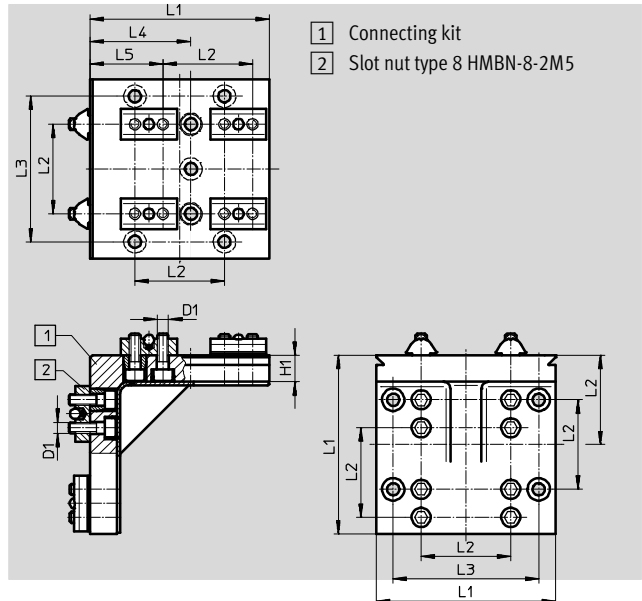
Connecting kit HMBSW

Scope of delivery:

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

Material:

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



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

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

Basic components

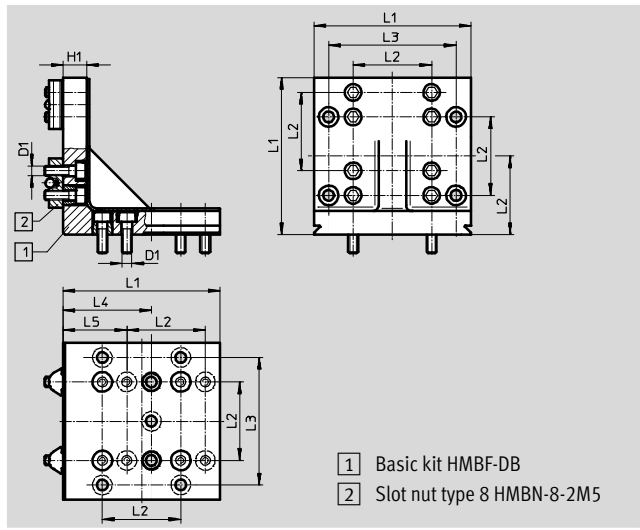
Technical data



Basic kit HMBF-DB

Scope of delivery:
1 bracket, 16 screws, 4 slot nuts,
8 spacer rings, 2 cover caps

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



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

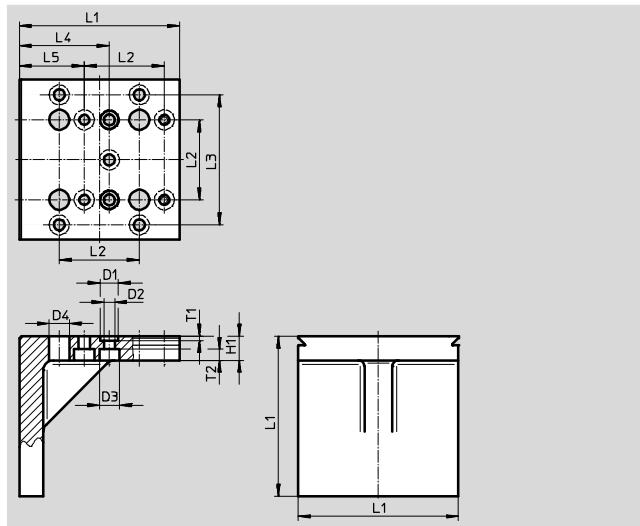
| Dimensions and ordering data | | | | | | | | | | | |
|------------------------------|----|----|----|----|----|----|------|-------------------|----------------|-------------------|------------------|
| Designation | D1 | H1 | L1 | L2 | L3 | L4 | L5 | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| Basic kit |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

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

Connecting kit HMBWS

Scope of delivery:
1 bracket

Material:
Aluminium
Free of copper, PTFE and silicone



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

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

Basic components

Technical data

Connecting kit HMBV-ND

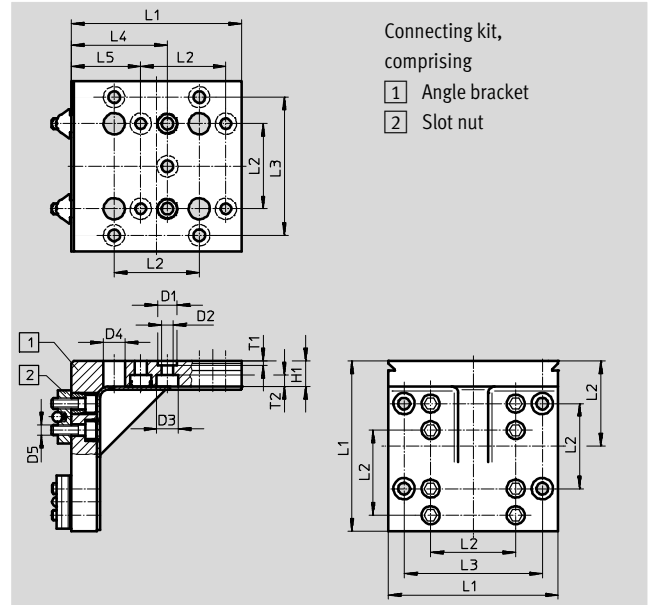
- for HMP
- for SLT with HMBK-WS and HMSV-34 ... 37

Scope of delivery:

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

Material:

- Anodised aluminium
- Free of copper, PTFE and silicone



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

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

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

2) Packaging unit.

Basic components

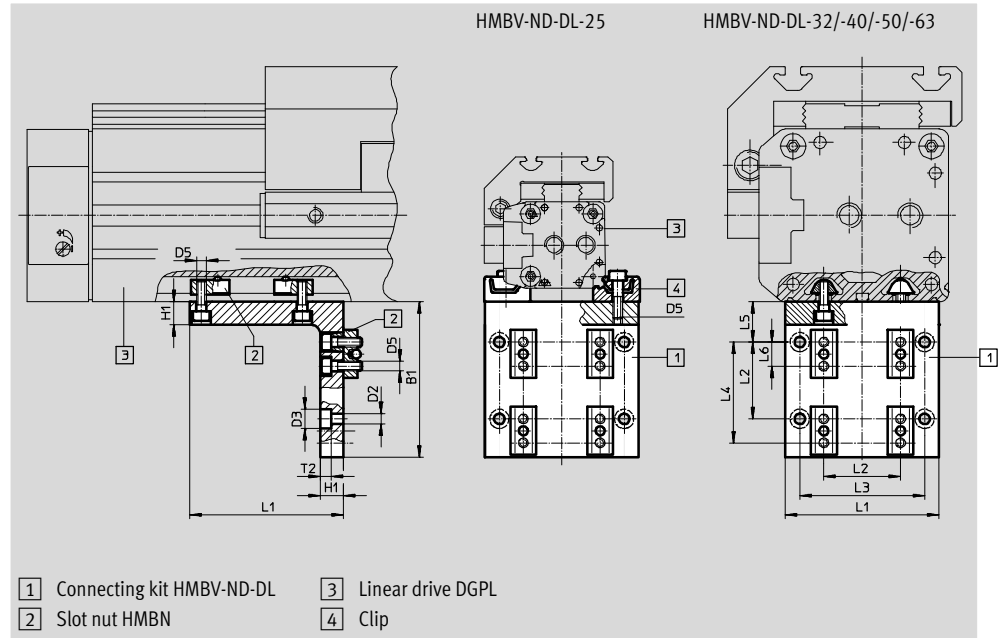
Technical data



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

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

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

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

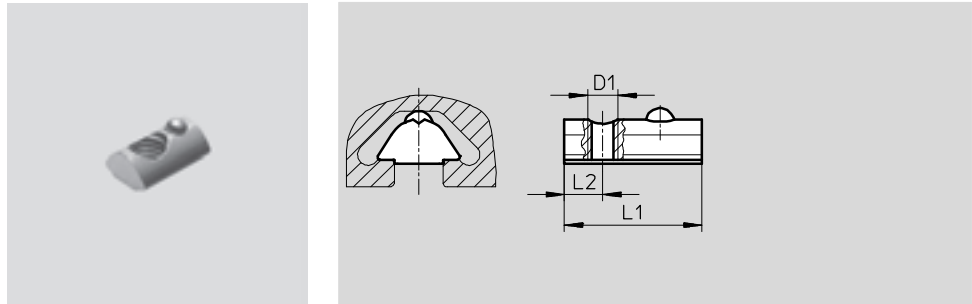
- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.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

Basic components

Technical data

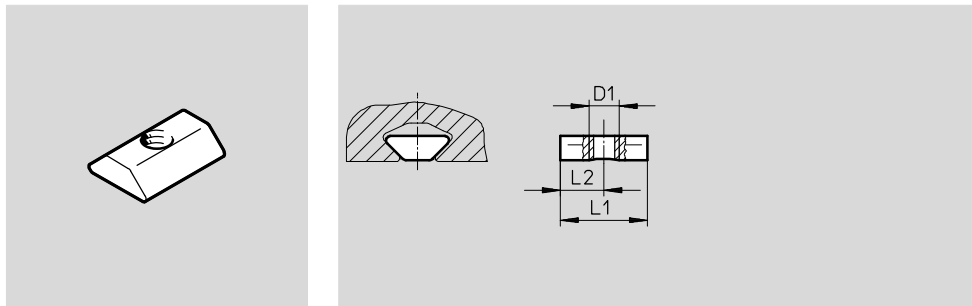
Slot nut HMBN-5-M5

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



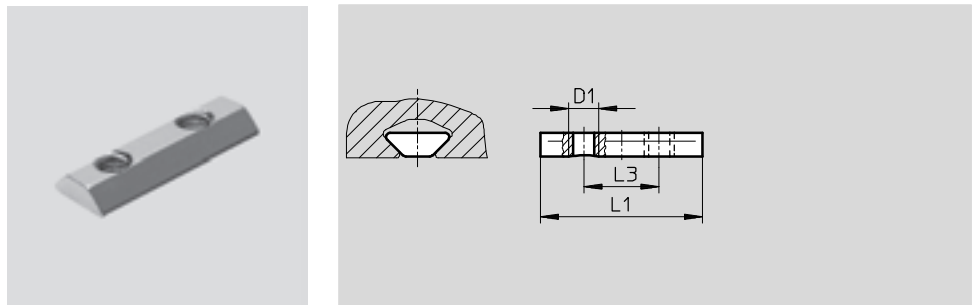
Slot nut HMBN-5-1M5

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



Slot nut HMBN-5-2M5

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



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

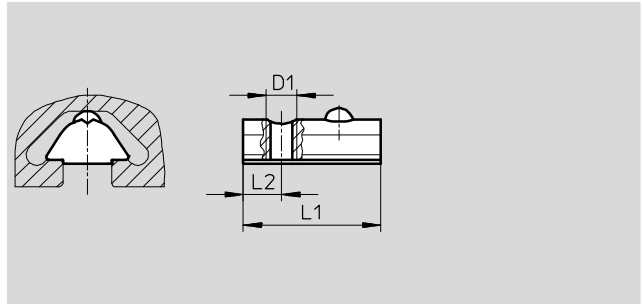
- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.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

Basic components

Technical data

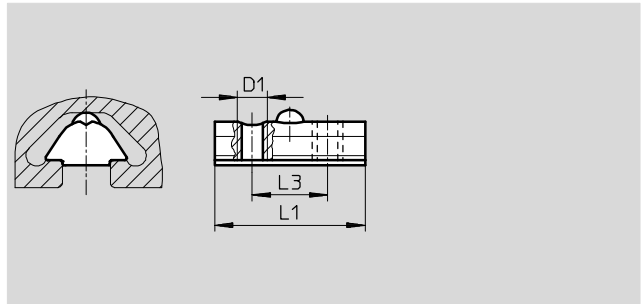
Slot nut HMBN-8-M5

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



Slot nut HMBN-8-2M5

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



| Dimensions and ordering data | | | | | | | | | |
|------------------------------|----|------|------|------|-------------------|----------|-----------|------------------|---------|
| Type | D1 | L1 | L2 | L3 | CRC ¹⁾ | Part No. | Type | PU ²⁾ | |
| HMBN-8-M5 | M5 | 22.5 | 6.25 | – | 2 | 189 655 | HMBN-8-M5 | 10 | |
| HMBN-8-2M5 | | 25 | – | 12.5 | | | | | 186 567 |

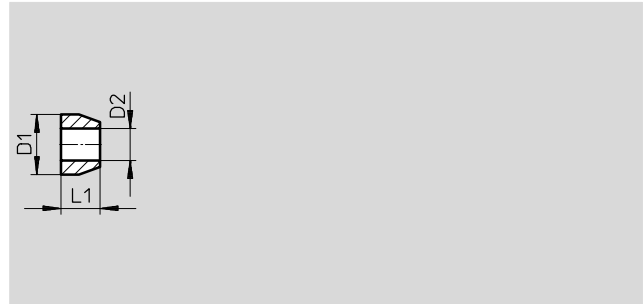
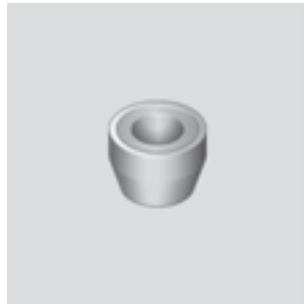
1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.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

Basic components

Technical data

Spacer ring HMBRD

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

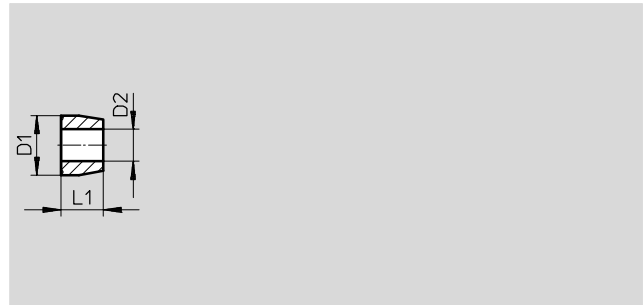
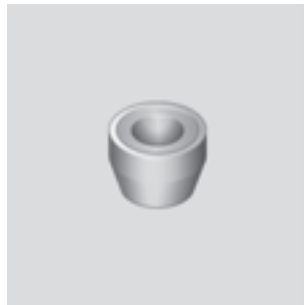


| Dimensions and ordering data | | | | | | | |
|------------------------------|----|-----|------|-------------------|----------------|--------------|------------------|
| Type | D1 | D2 | L1 | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| | ∅ | ∅ | ±0.1 | | | | |
| | h8 | | | | | | |
| HMBRD | 10 | 5.3 | 6.5 | 2 | 186 563 | HMBRD | 10 |

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

Cutting ring HMBRS

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



| Dimensions and ordering data | | | | | | | |
|------------------------------|-------|-----|----|-------------------|----------------|--------------|------------------|
| Type | D1 | D2 | L1 | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| | ∅ | ∅ | | | | | |
| | +0.04 | | | | | | |
| HMBRS | 9.9 | 5.3 | 7 | 2 | 186 564 | HMBRS | 10 |

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

Basic components

Technical data

Centring pin ZBS

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

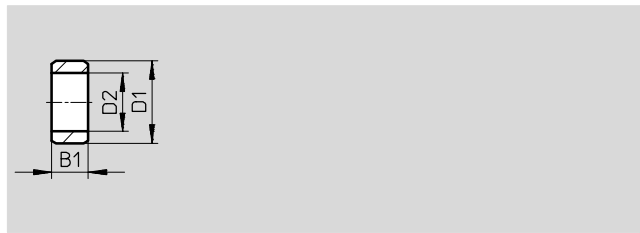


| Dimensions and ordering data | | | | | | |
|------------------------------|------|------|-------------------|----------------|--------------|------------------|
| Type | B1 | D1 | CRC ¹⁾ | Part No. | Type | PU ²⁾ |
| | -0.2 | ∅ h8 | | | | |
| ZBS-2 | 5 | 2 | 2 | 525 273 | ZBS-2 | 10 |
| ZBS-5 | 5 |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

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

Centring sleeve ZBH

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



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

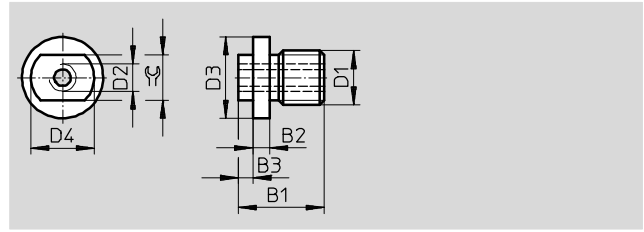
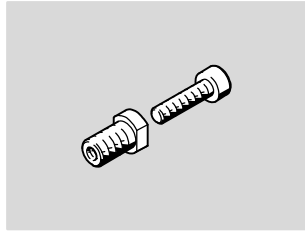
- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.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

Basic components

Technical data

Connector sleeve ZBV-M...

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

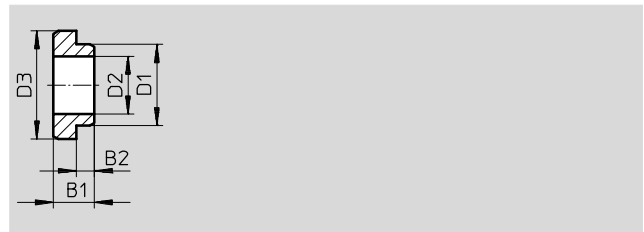
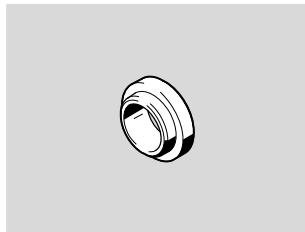


| Dimensions and ordering data | | | | | | | | | | | | |
|------------------------------|-----|---------------------|-------------------|----|------|---------------|---------------|-----|-------------------|----------|----------|------------------|
| Type | B1 | B2 | B3 | D1 | D2 | D3 ∅ h7 | D4 ∅ h7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

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

Connector sleeve ZBV

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



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

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

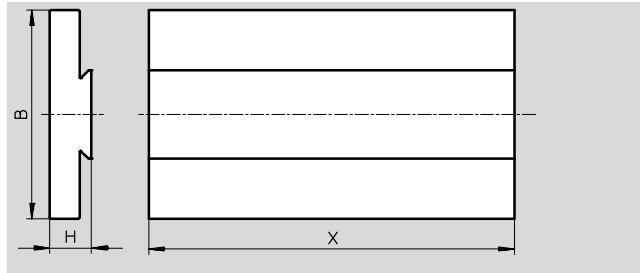
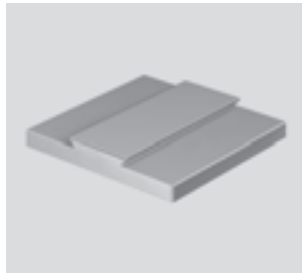
Basic components

Technical data

Adapter plate HMAV-...-X

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone

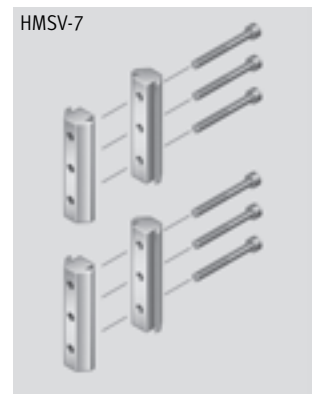
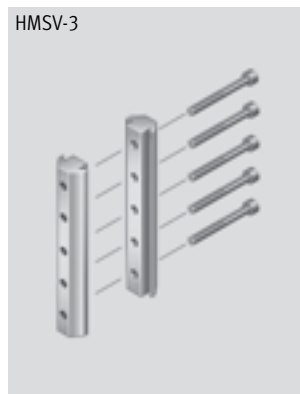
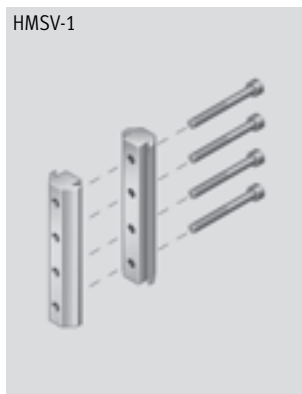


| Dimensions and ordering data | | | | | | | |
|------------------------------|----|----|-----------------|-------------------|----------|-----------|------------------|
| Type | H | B | X ¹⁾ | CRC ²⁾ | Part No. | Type | PU ³⁾ |
| HMAV-80-X | 16 | 80 | | 2 | 189 451 | HMAV-80-X | 1 |
| HMAV-90-X | 13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

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

Adapter kit HMSV

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

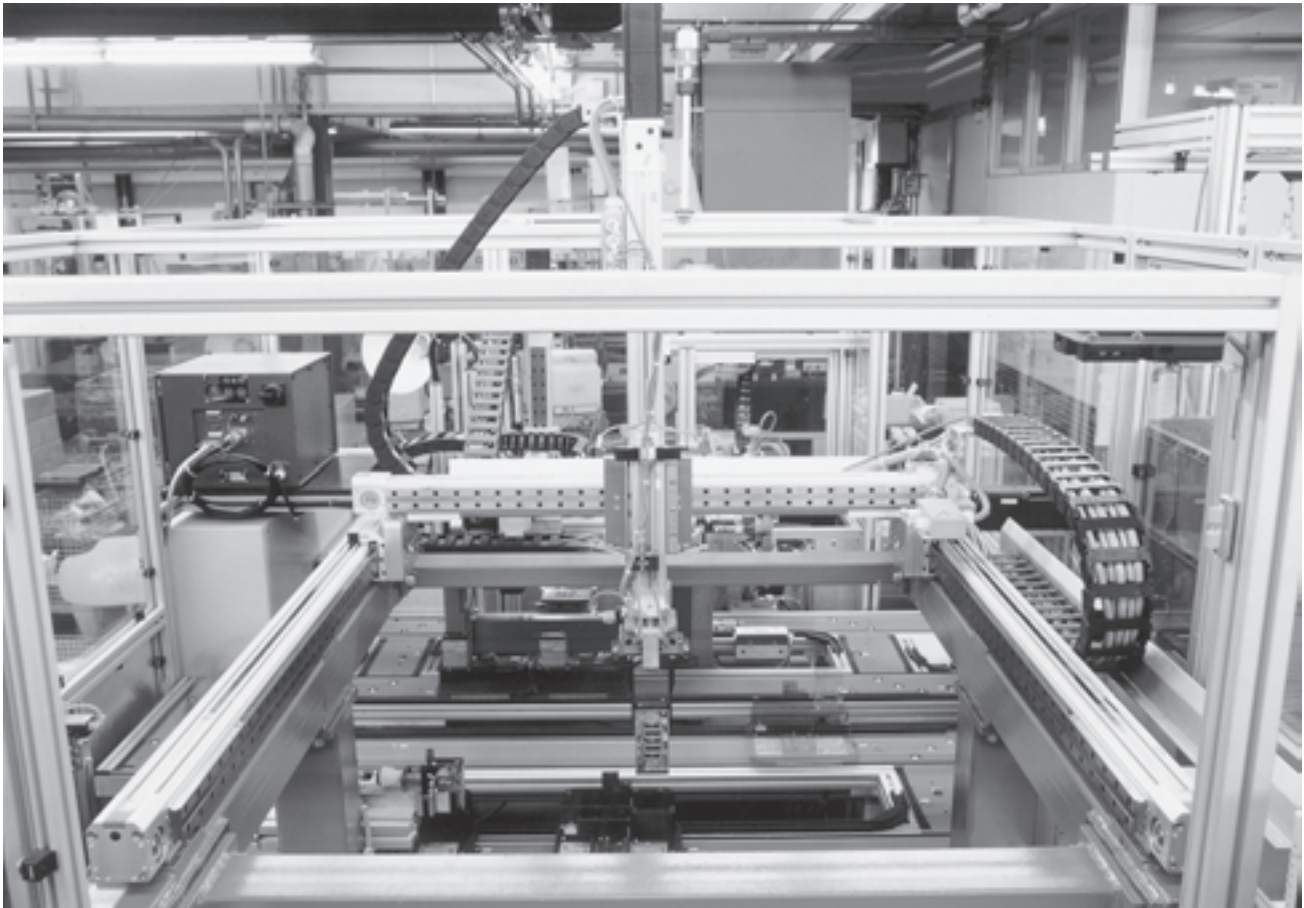


- Modular
- Functional
- Flexible

Connecting components

Key features

FESTO



Connecting kits

Basic kit

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

Adapter kit

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

Connecting kit


For connecting drives and basic components.

Reinforcing kit

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

Mounting kit

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

-  - Note

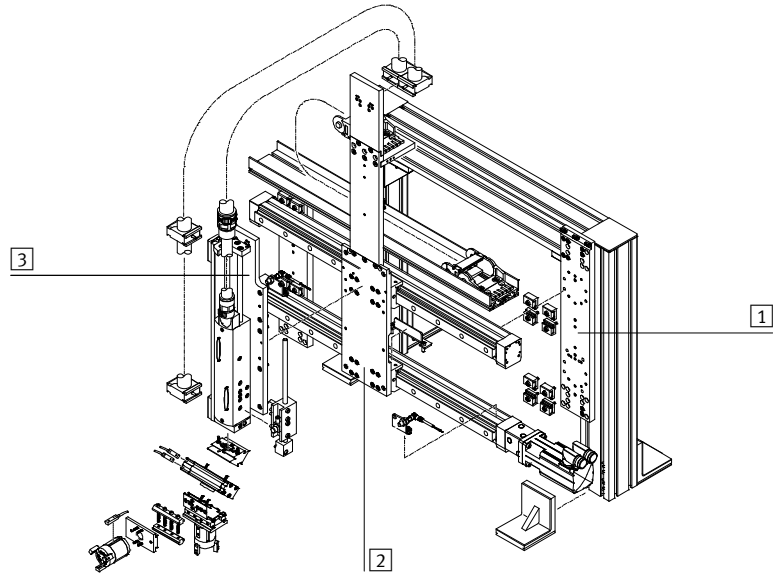
The kits look different depending on their size and combination. They contain all of the holes and threads needed for mounting.

Connecting components

Key features

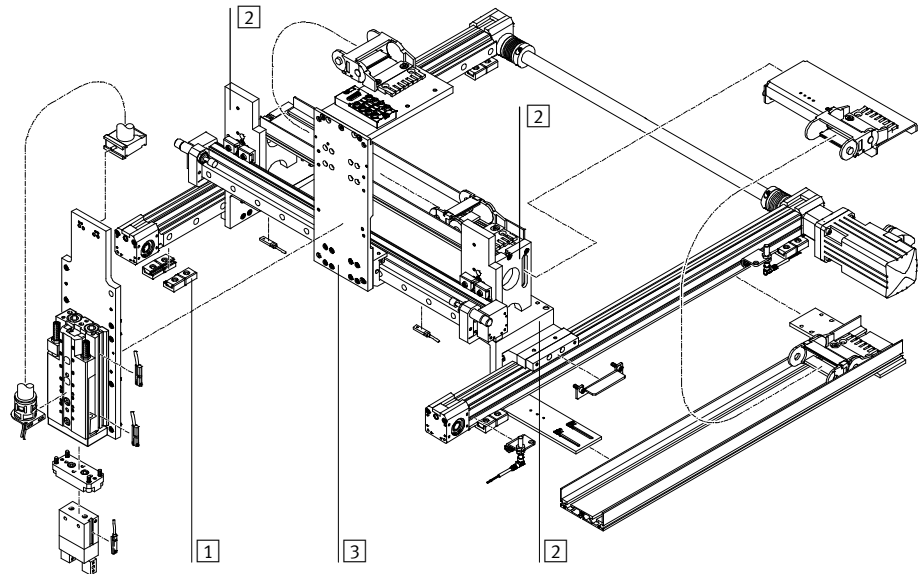
Linear gantry

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



Three-dimensional gantry









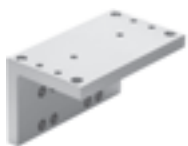

- 1 Components for mounting basic axes
- 2 Components for lateral mounting of an axis (adapter kit, reinforcing kit, basic kit)
- 3 Components for mounting the drives along the Z-axis in gantry designs



Connecting components



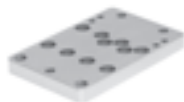



Product range overview

FESTO

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

Connecting components

Product range overview

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

Connecting components

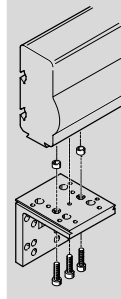
Technical data

Connecting kit
HMBK-DB

- For pick & place

- For direct mounting of linear modules HMP

Material:
Steel
Free of copper, PTFE and silicone



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

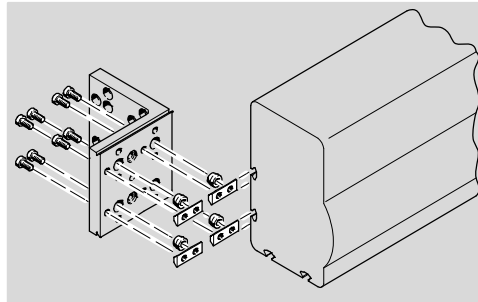
1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Connecting kit
HMBK-ND

- For pick & place

- For direct mounting of linear modules HMP

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



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

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

Connecting components

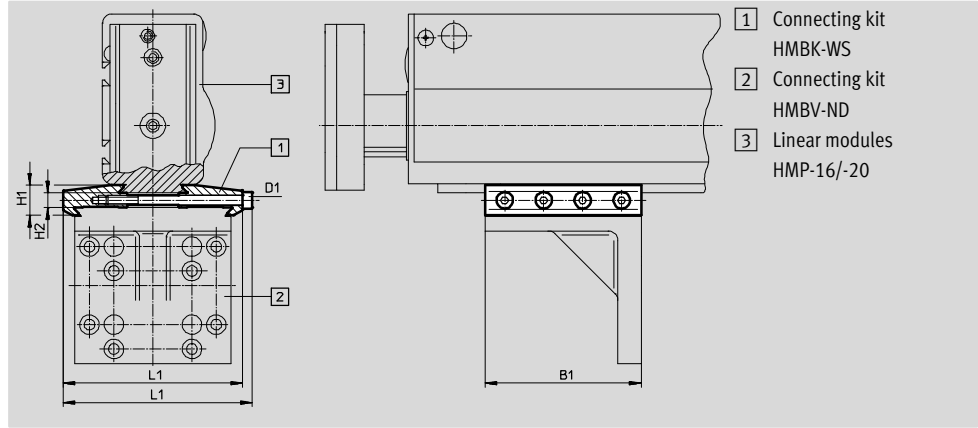
Technical data



Connecting kit HMBK-WS

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



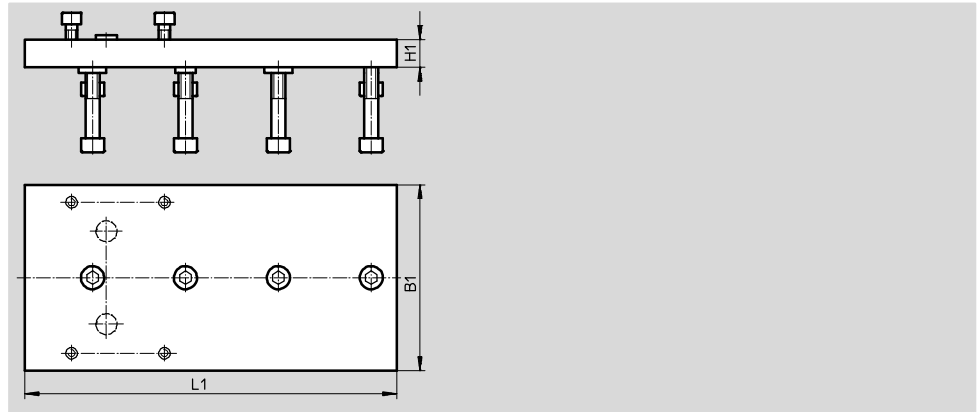
| Dimensions and ordering data | | | | | | | | | | |
|------------------------------|----|----|------|-----|----|----|-------------------|------------|----------|---------|
| Type | B1 | D1 | H1 | H2 | L1 | L2 | CRC ¹⁾ | Weight [g] | Part No. | Type |
| HMBK-WS | 80 | M5 | 15.5 | 7.5 | 97 | 92 | 2 |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

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

Connecting kit HMOV

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

Connecting components

Technical data

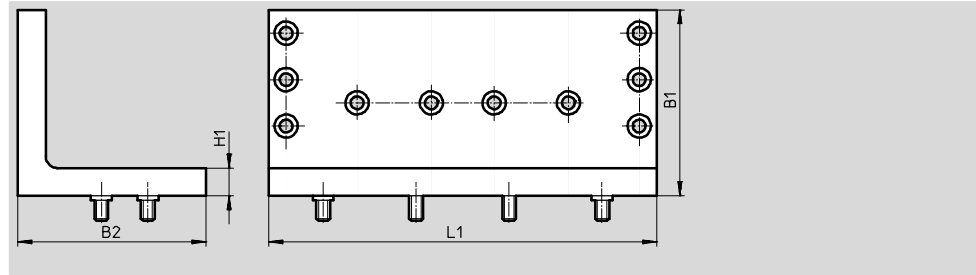


Adapter kit HMVW-DL

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

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

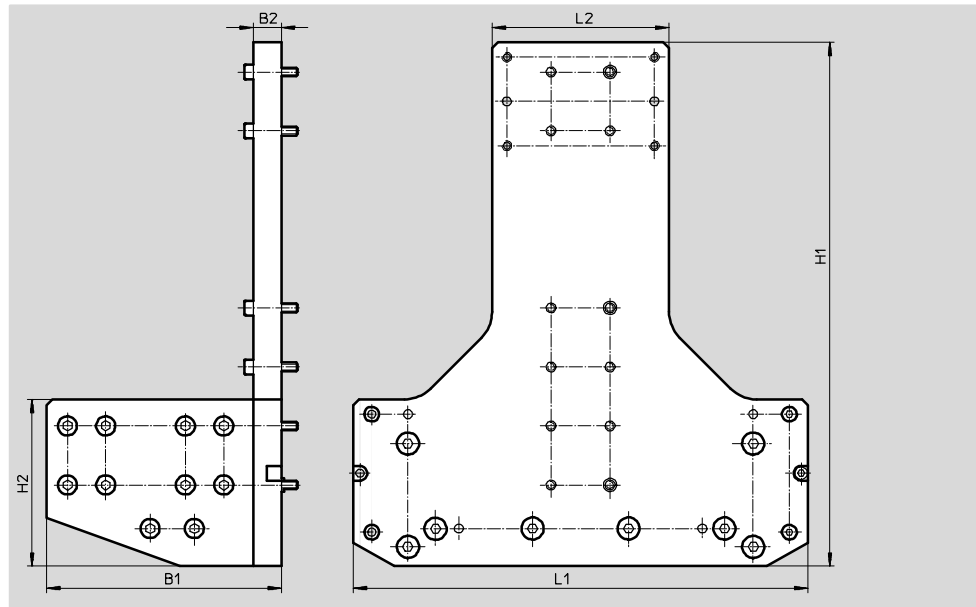
1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Mounting bracket HMVW-DL63-2

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

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

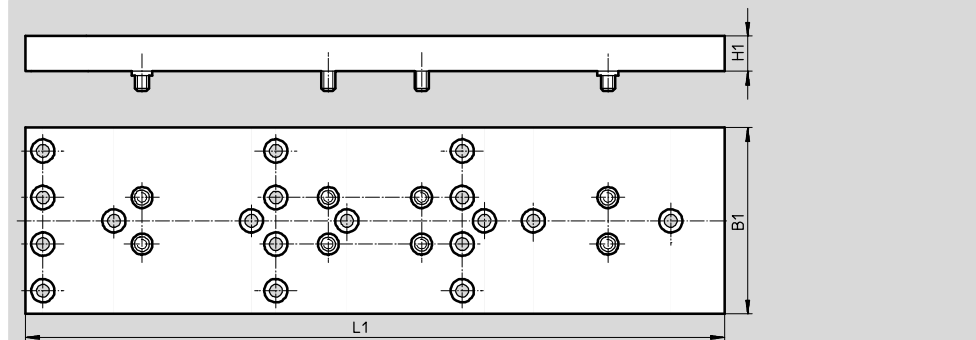
Connecting components

Technical data

Adapter kit HMVS-RF

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



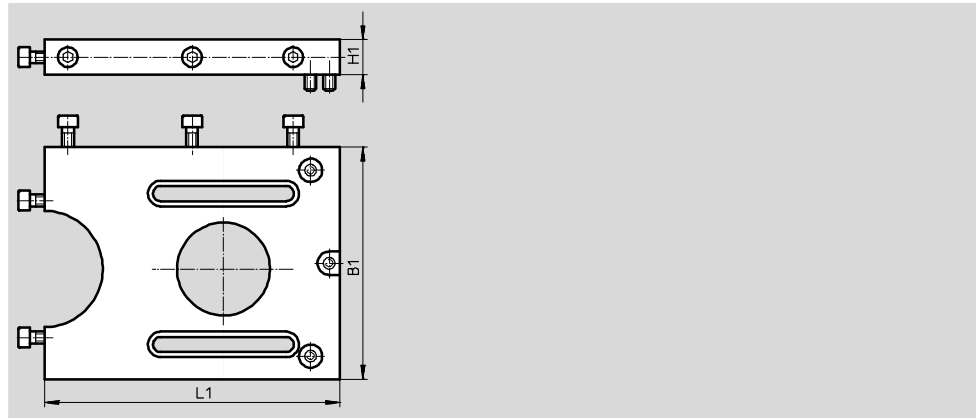
| Dimensions and ordering data | | | | | | | |
|------------------------------|----|----|-----|-------------------|------------|----------|-----------|
| Type | B1 | H1 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
| HMVS-RF25 | 80 | 15 | 190 | 2 | 600 | 539 652 | HMVS-RF25 |
| HMVS-RF40 | 80 | 15 |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

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

Reinforcing kit HMVV-RP/FP

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

Connecting components

Technical data

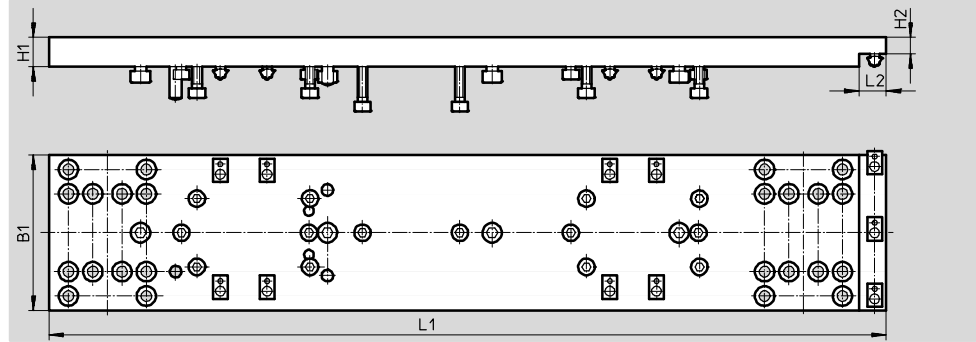


Basic kit
HMVM-LP
HMVD-LP

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

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

Material:
 Anodised aluminium
 Free of copper, PTFE and silicone



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

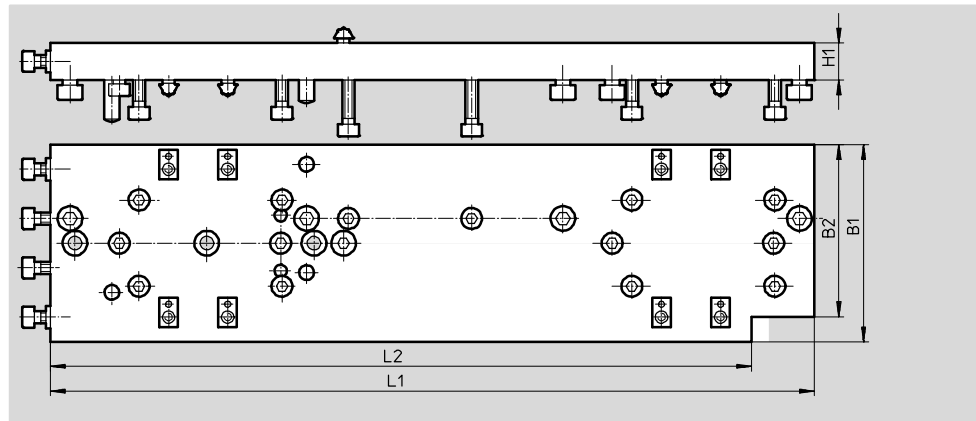
1) Corrosion resistance class 2 according to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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

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

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

Material:
 Anodised aluminium
 Free of copper, PTFE and silicone



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

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

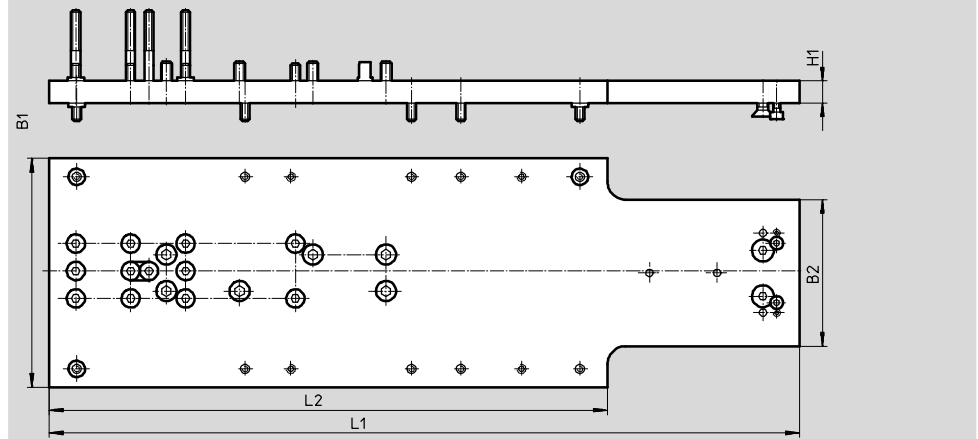
Connecting components

Technical data

Basic kit
HMVZ

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

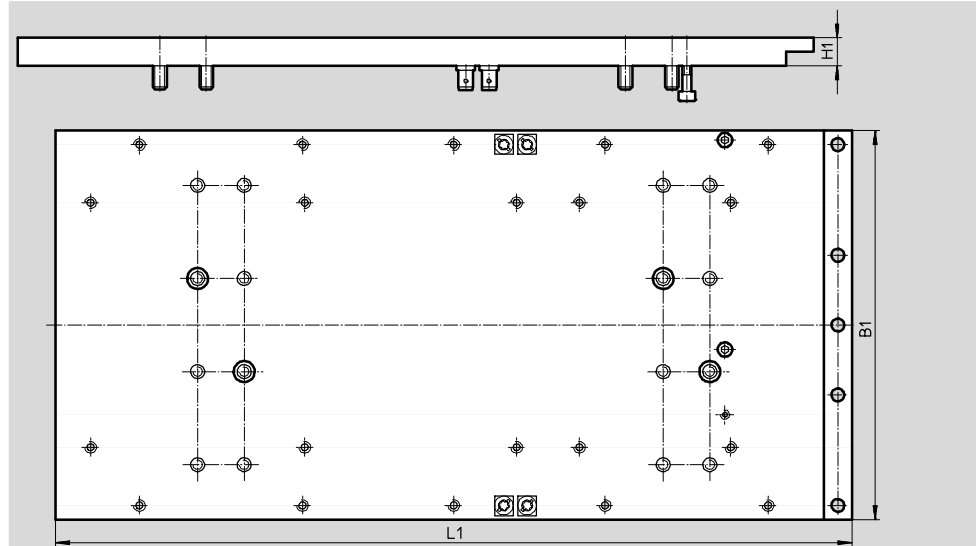
Connecting components

Technical data



Adapter kit HMVS-DL

- For linear and three-dimensional gantries
 - For Z-axis
 - For mono and duo systems
 - Mounting interface for basic kit HMVZ
 - Mounting accessories and earthing kits included in the scope of delivery
- Material:
Anodised aluminium
Free of copper, PTFE and silicone

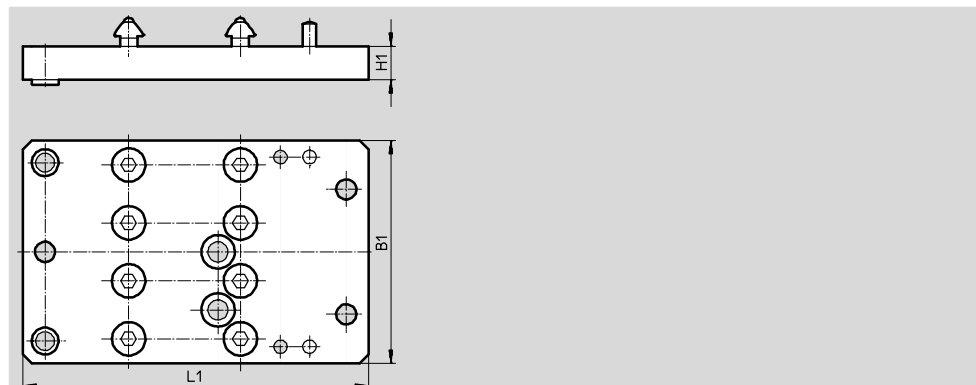
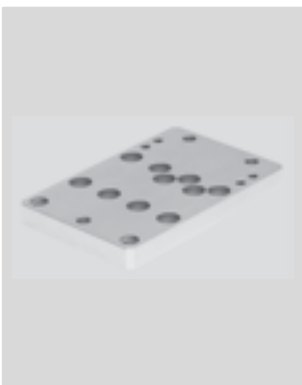


| Dimensions and ordering data | | | | | | | |
|------------------------------|-----|----|-----|-------------------|------------|----------|-----------|
| Type | B1 | H1 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
| HMVS-DL25 | 125 | 12 | 305 | 2 | 1,050 | 539 368 | HMVS-DL25 |
| HMVS-DL40 | 167 |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

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

Adapter kit HMVA

- For linear and three-dimensional gantries
 - For Z-axis
 - For duo systems
 - Mounting interface for drives
 - Mounting accessories included in the scope of delivery
- Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

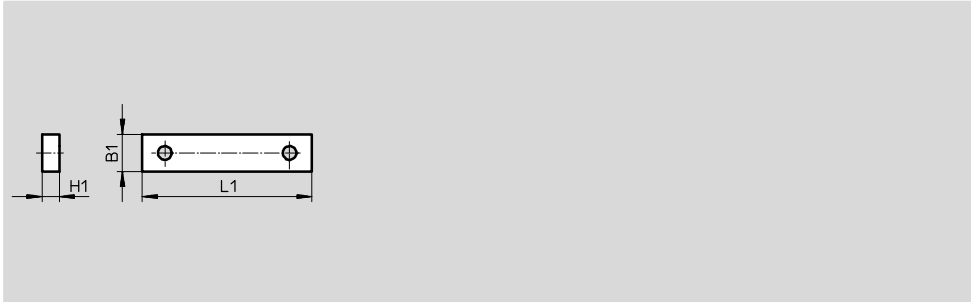
Connecting components

Technical data

Connecting plate HMVO-RF
Connecting plate HMVO-POT

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

Material:
 Anodised aluminium
 Free of copper, PTFE and silicone



HMVO-RF25

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

HMVO-POT

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

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

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

Connecting components

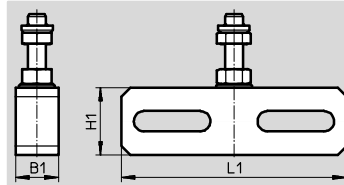
Technical data



Adjusting kit HMVE

- For linear gantries
- For aligning the Y-axis

Material:
Galvanised steel
Free of copper, PTFE and silicone



Dimensions and ordering data

| Type | B1 | H1 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
|------|----|----|-----|-------------------|------------|----------|------|
| HMVE | 19 | 30 | 100 | 2 | 150 | 566 884 | HMVE |

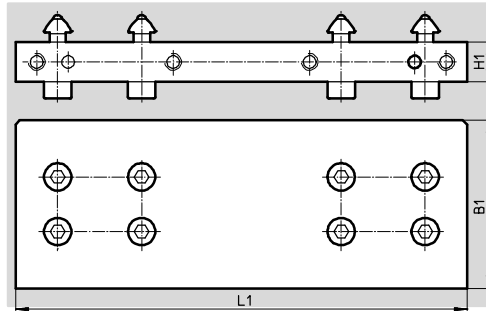
1) Corrosion resistance class 2 according to Festo standard 940 070

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

Reinforcing plate HMVD-DL

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

Material:
Galvanised steel
Free of copper, PTFE and silicone

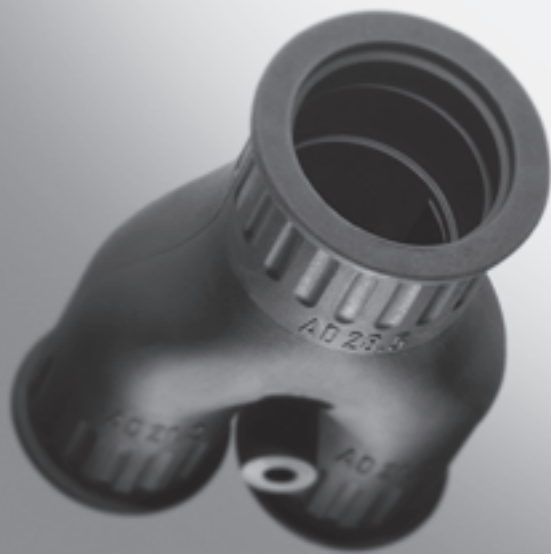


Dimensions and ordering data

| Type | B1 | H1 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
|------|----|----|-----|-------------------|------------|----------|---------------|
| HMVD | 80 | 19 | 215 | 2 | 900 | 566 892 | HMVD-DL-40/63 |

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

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



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

Installation components for short strokes

Key features

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



Protective conduit MKR



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

Separable protective conduit MKG



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

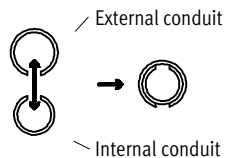
Junction box HMZV



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

Accessories

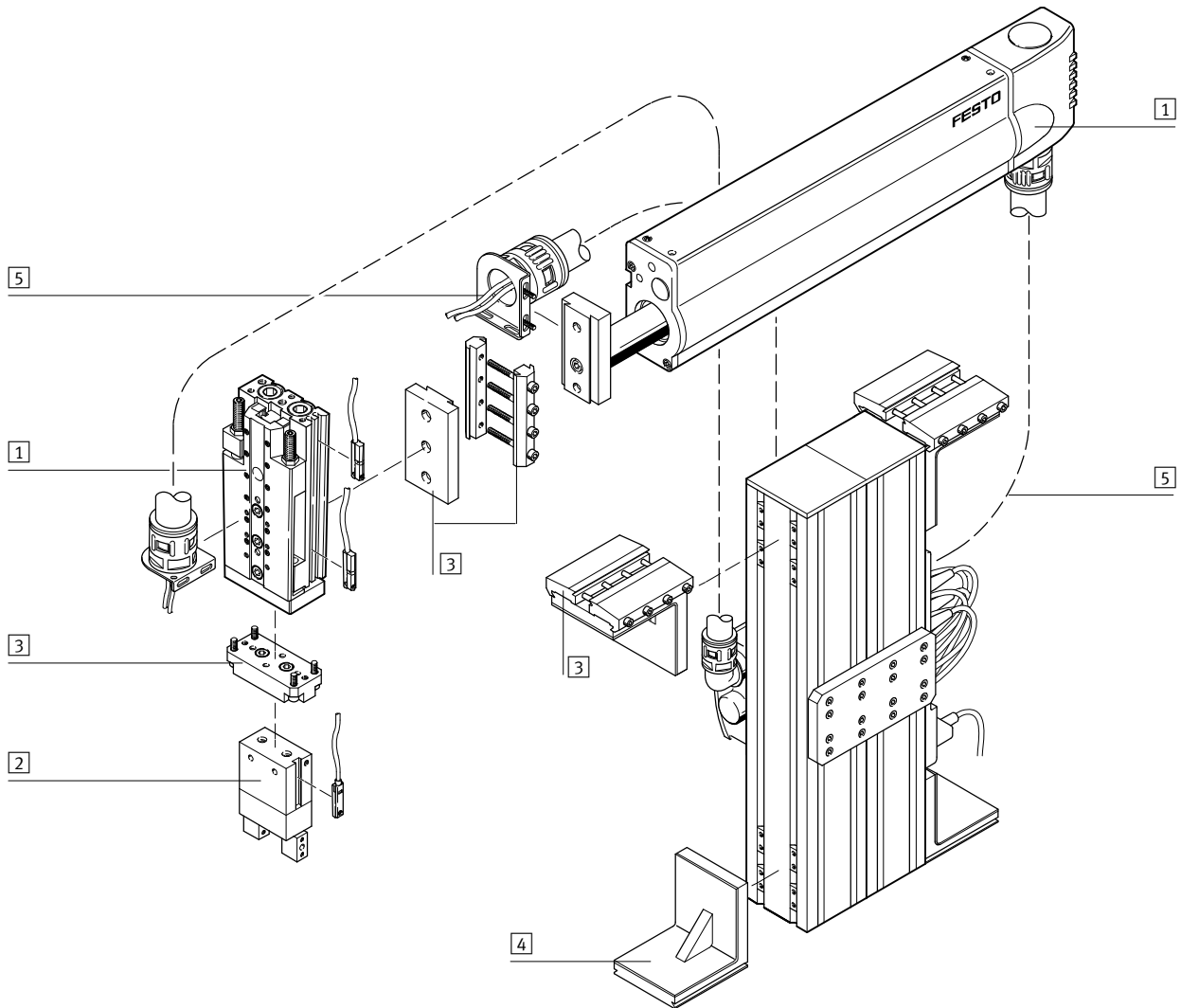
- Fittings and connectors
MKRV, MKGV, MKA, MKRL, MKRT, MKY
- Lock nut
MKM
- Retaining clip
MKRS
- Installation kit
HMZAS



Installation components for short strokes

System example

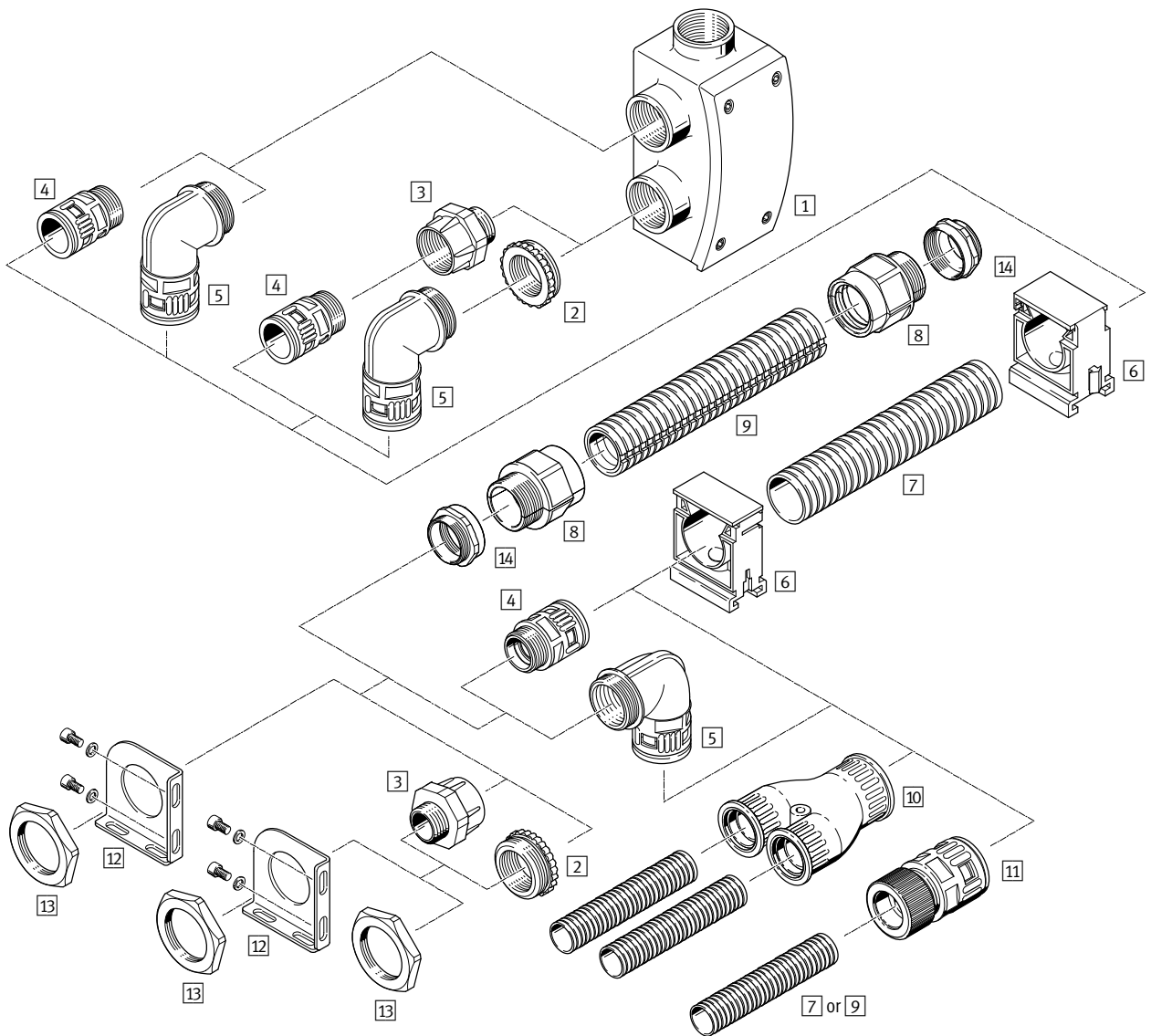
System product for handling and assembly technology



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

Installation components for short strokes

Peripherals overview














Installation components for short strokes

Peripherals overview

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







Installation components for short strokes

Selection aid

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

Installation components for short strokes

Selection aid

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

Installation components for short strokes

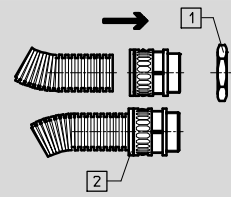
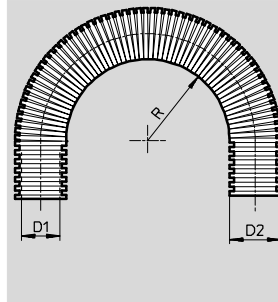
Technical data



Protective conduit MKR
for Pg connecting thread

Material:
Polyamide
Free of copper, PTFE and silicone

Scope of delivery: 1m



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

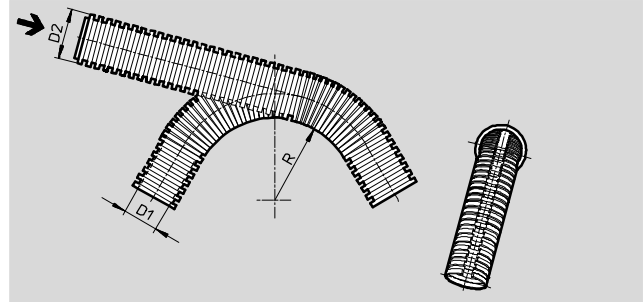
Installation components for short strokes

Technical data

Protective conduit MKG, separable for Pg connecting thread

Materials:
Polypropylene
Free of copper and PTFE
RoHS-compliant

Scope of delivery: 1m



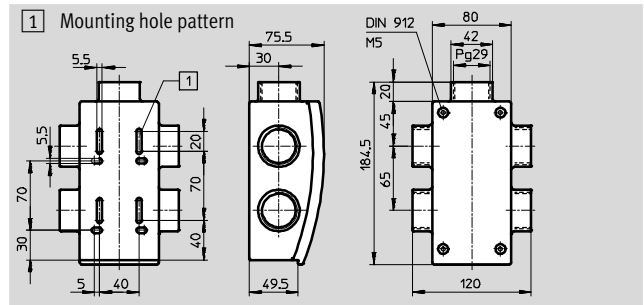
| Dimensions and ordering data | | | | |
|------------------------------|---------|---------|-------|---------------------------|
| Pg connecting thread | D1 Ø | D2 Ø | R | Temperature range [°C] |
| Pg 29 | 22.1 | 28.4 | ≥ 60 | -20 ... +100 |
| | 31.8 | 42.4 | ≥ 120 | |

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

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

Junction box HMZV with mounting kit for profile column HMBS

Material:
Polyamide
Free of copper, PTFE and silicone



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

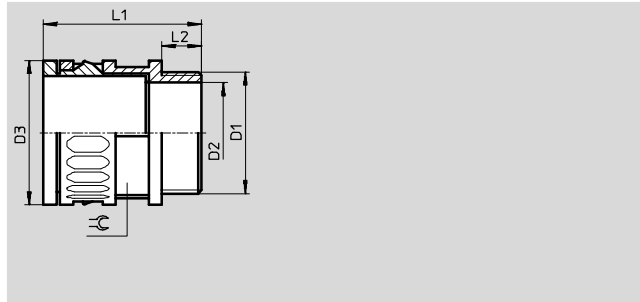
1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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 |

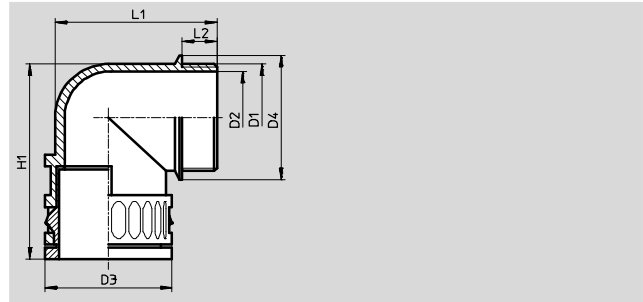
1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Elbow connector for protective conduit MKRL

Material:
Polyamide
Free of copper, PTFE and silicone



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

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

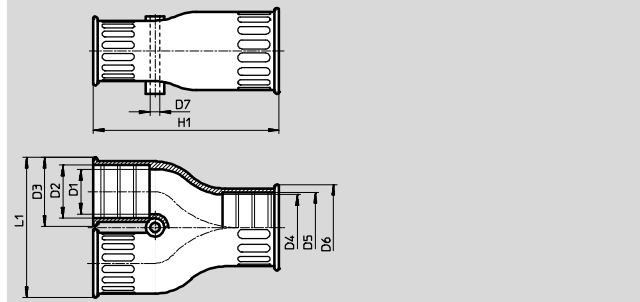
1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Y-distributor MKY

Material:
Thermoplastic rubber
Free of copper, PTFE and silicone



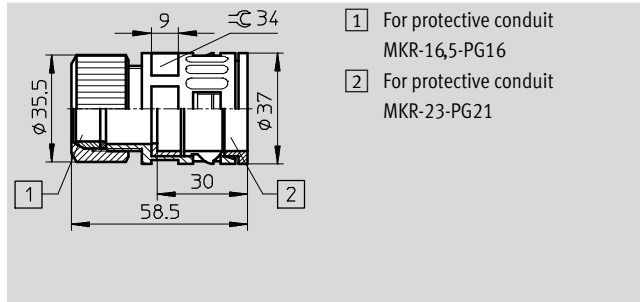
| Dimensions and ordering data | | | | | | | |
|------------------------------|-------|------|------|------|------|----|------|
| Pg connecting thread D1 | | D2 | D3 | D4 | D6 | D7 | H1 |
| D1 | D5 | ∅ | ∅ | ∅ | ∅ | ∅ | |
| Pg 16 | Pg 21 | 21.2 | 29.5 | 25.5 | 36.5 | 4 | 81.5 |
| Pg 21 | Pg 29 | 28.5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

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

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

Protective conduit connector MKRT

Material:
Polyamide
Free of copper, PTFE and silicone



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

| 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 |

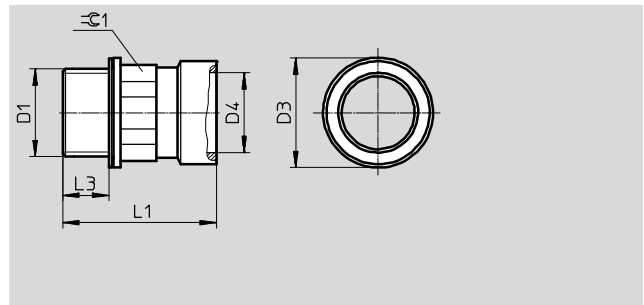
1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Protective conduit fitting MKGV, separable

Materials:
Polyamide
Free of copper and PTFE
RoHS-compliant



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

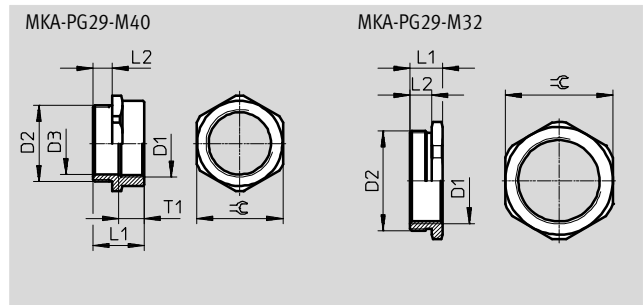
| M-connecting thread D1 | Temperature range [°C] | Degree of protection | Mounting position | CRC ¹⁾ | Weight [g] | Part No. | Type |
|------------------------|------------------------|----------------------|-------------------|-------------------|------------|----------|---------------|
| ∅ | | | |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

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

Reducing connector MKA

Conversion of M thread to Pg thread

Materials:
Nickel-plated brass
RoHS-compliant



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

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

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

Installation components for short strokes

Technical data

Reducing connector MKA

For reducing Pg 29 to Pg 21

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

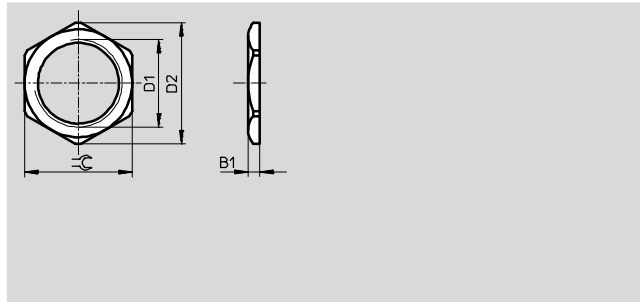


| Dimensions and ordering data | | | | | | | |
|------------------------------|------------------------|------------------|-------------------|-------------------|------------|----------|-----------------|
| Pg connecting thread | Temperature range [°C] | Protection class | Mounting position | CRC ¹⁾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

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

Lock nut MKM

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



| Dimensions and ordering data | | | | | | | |
|------------------------------|------|-----|-------------|-------------------|-------------------|------------|-------------------|
| Pg connecting thread D1 | D2 | B1 | $\approx C$ | 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 | | 32 | | | 8 | 177 599 MKM-PG-21 |
| Pg 29 | 45 | 4 | 41 | | | 14 | 177 600 MKM-PG-29 |

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

Installation components for short strokes

Technical data

Reducing connector MKA-KU

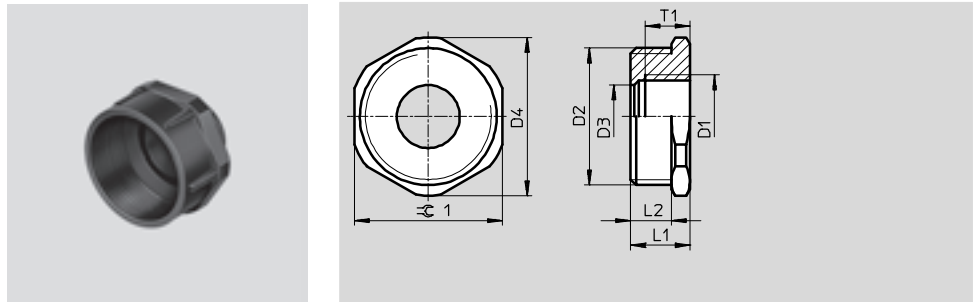
For reducing Pg 21 to Pg 16

For reducing Pg 29 to Pg 16

Material:

Polyamide

Free of copper, PTFE and silicone



| Dimensions and ordering data | | | | | | | |
|------------------------------|-------|-------|---------|---------|----|----|---------|
| Pg connecting thread | D1 | D2 | D3 ∅ | 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 according to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

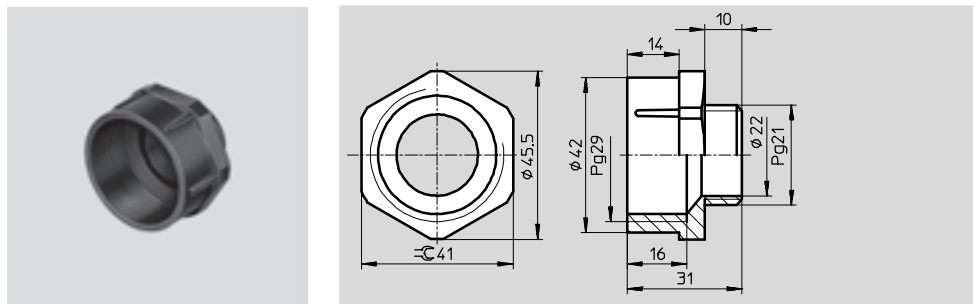
Reducing connector MKA-KU

For enlarging Pg 21 to Pg 29

Material:

Polyamide

Free of copper, PTFE and silicone



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

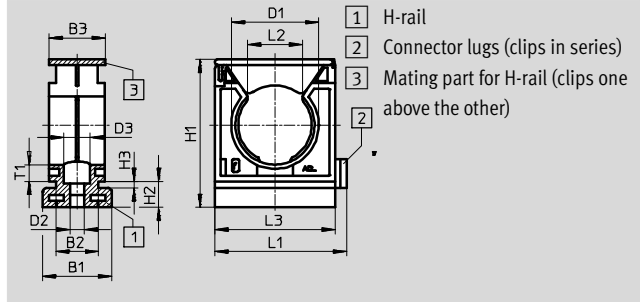
1) Corrosion resistance class 2 according to Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Installation components for short strokes

Technical data

Retaining clip MKRS

Material:
Polyamide
Free of copper, PTFE and silicone



| Dimensions and ordering data | | | | | | | | | | | |
|------------------------------|----|----|----|---------|---------|---------|----|-----|-----|------|--|
| Pg connecting thread | B1 | B2 | B3 | D1 ∅ | D2 ∅ | D3 ∅ | H1 | H2 | H3 | L1 | |
| Pg 9 | 25 | 15 | 20 | 13 | 4.2 | 8 | 29 | 6.3 | 2.3 | 30 | |
| Pg 11 | | | | 15.8 | | | | | | 36.5 | |
| Pg 16 | | | | 21.2 | | | | | | 47.5 | |
| Pg 21 | | | | 28.5 | | | | | | | |
| Pg 29 | | | | 34.5 | | | | | | | |

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

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

Installation components for short strokes

Technical data

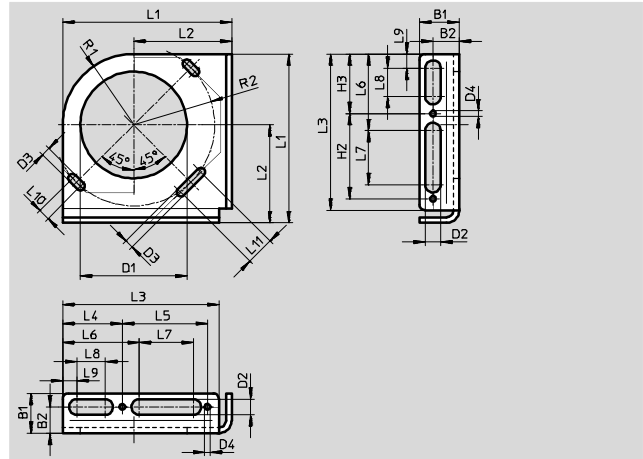
Installation kit HMZAS

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

Material:

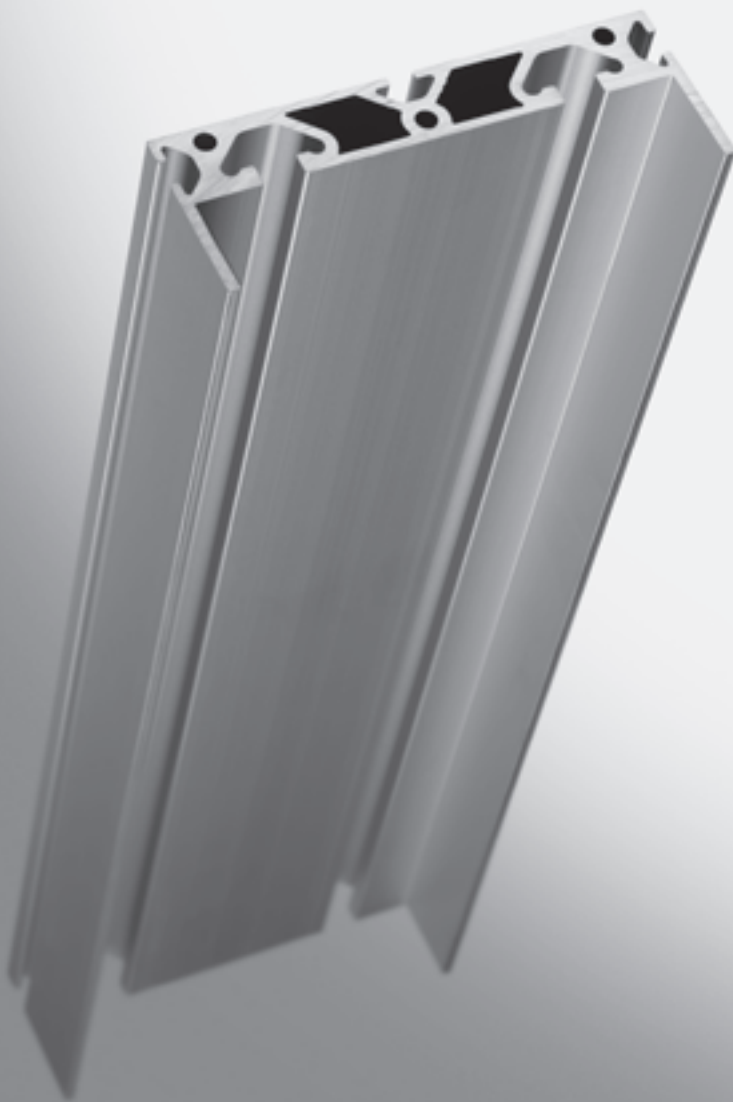
Powder-coated steel

Free of copper, PTFE and silicone



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

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



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

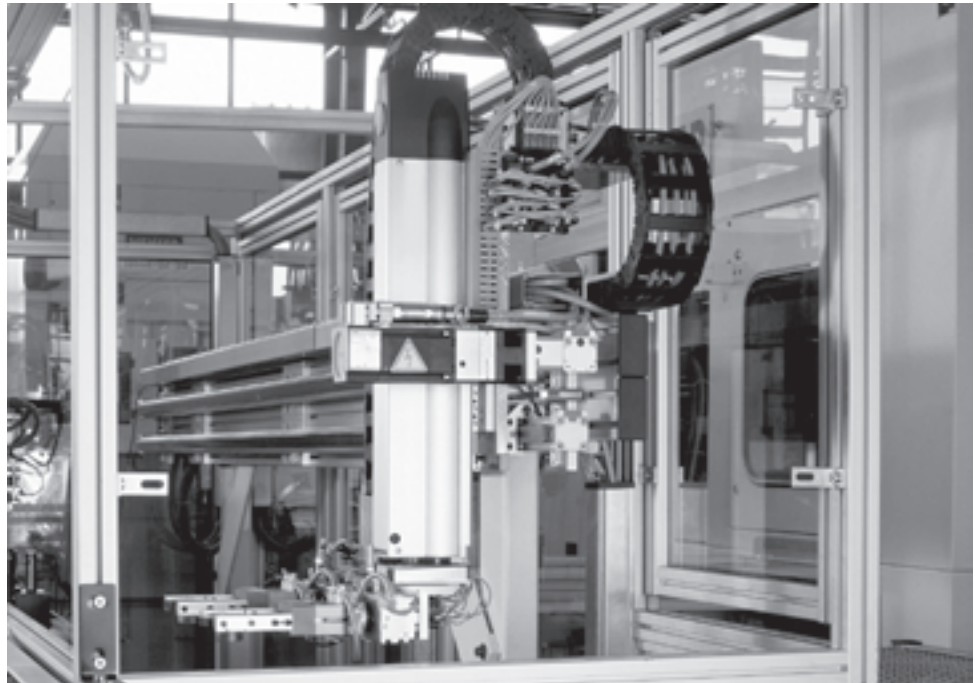
Installation components for long strokes

Key features

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

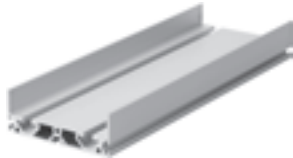
They can be quickly dismantled and reassembled if servicing is required. They are mainly used for long strokes in gantries and cantilever axes for connecting energy chains for the drives along the X and Y-axes.

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



Support profile

HMIA



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

Installation kits

HMIXB-RP/FP



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.

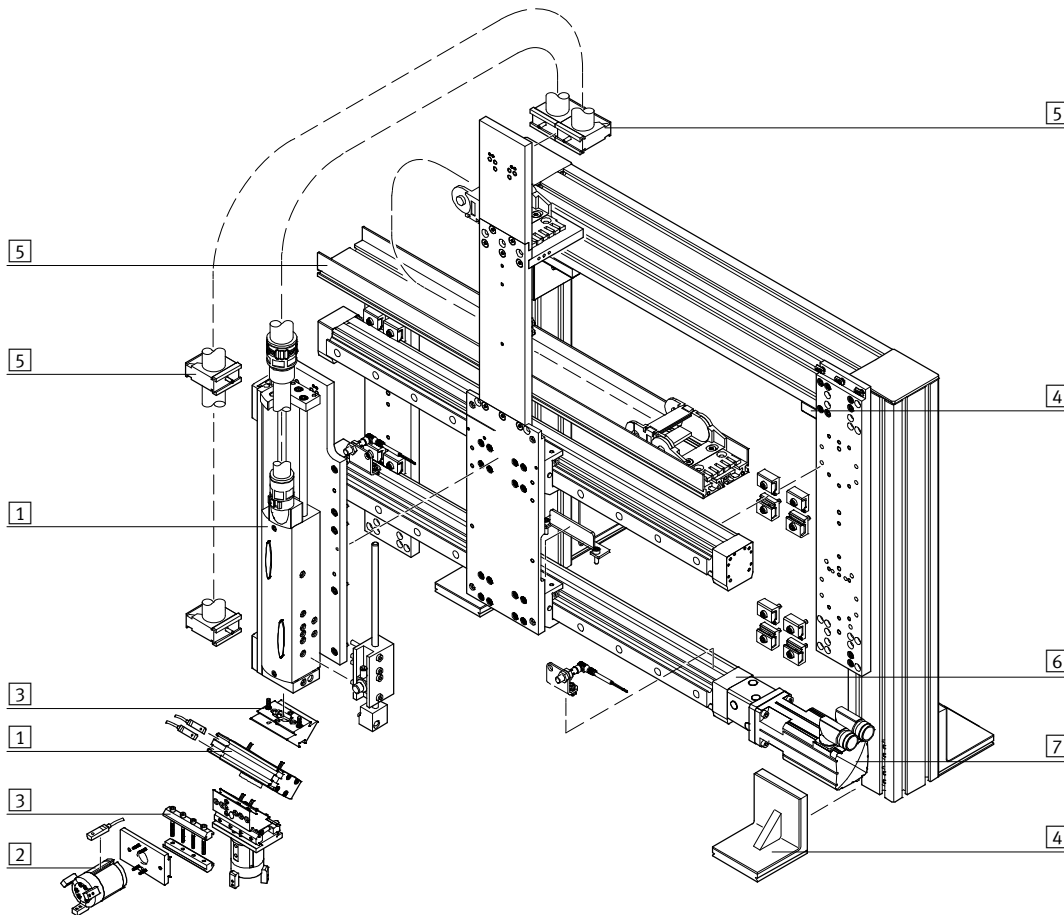
Accessories

- 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 connections as well as profile/drive connections basic component |
| 5 | Installation components | For a clear, safe layout of electrical cables and tubing installation component |
| 6 | Axes | Wide range of combinations possible within handling and assembly technology axis |
| 7 | Motors | Servo and stepper motors, with or without gear unit motor |








Installation components for long strokes

Selection aid

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

Installation components for long strokes

Selection aid

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

Installation components for long strokes

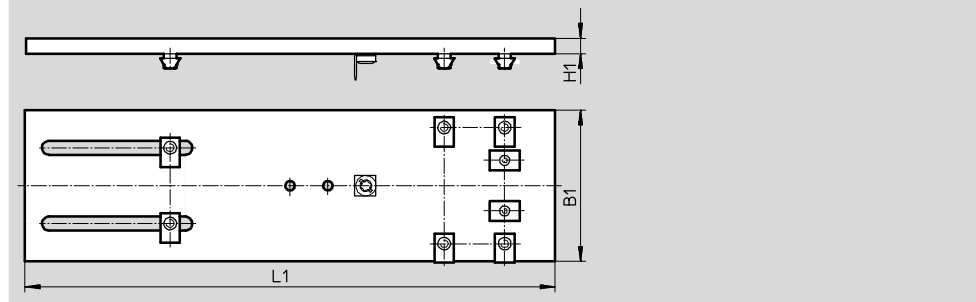
Technical data



Installation kit HMIXB-RP/FP

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



Dimensions and ordering data

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

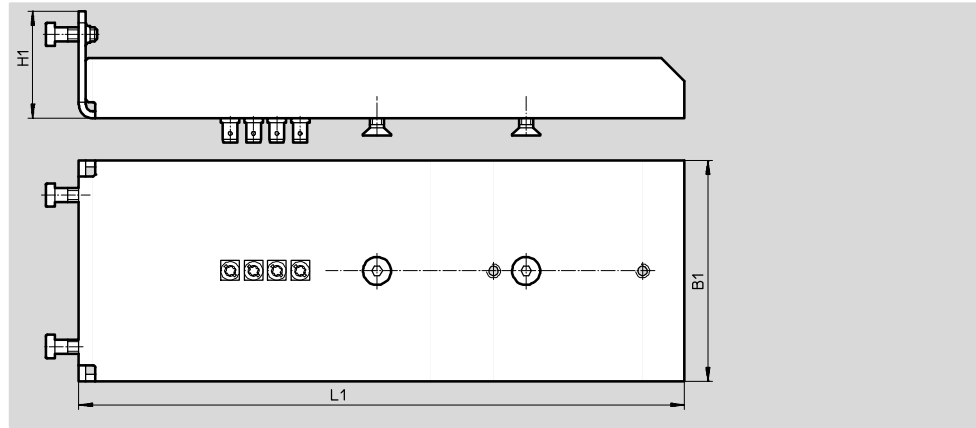
1) Corrosion resistance class 2 according to Festo standard 940 070

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

Installation kit HMIXF-RP/FP

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

Material:
Galvanised steel
Free of copper, PTFE and silicone



Dimensions and ordering data

| Type | B1 | H1 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
|---------------|----|----|-----|-------------------|------------|----------|---------------|
| HMIXF-RP/FP | 95 | 46 | 260 | 2 | 330 | 539 658 | HMIXF-RP/FP |
| HMIXF-RP/FP-2 | 95 | 46 | 314 | | 1,050 | 566 896 | HMIXF-RP/FP-2 |

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

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

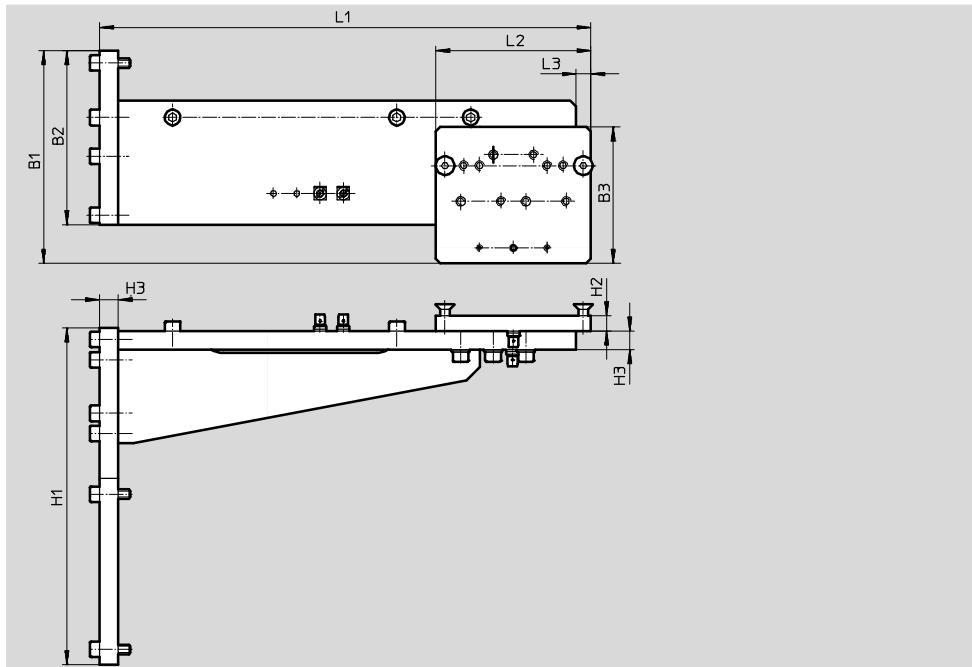
Installation components for long strokes

Technical data

Installation kit
HMIX-RP/FP-E07/E10

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



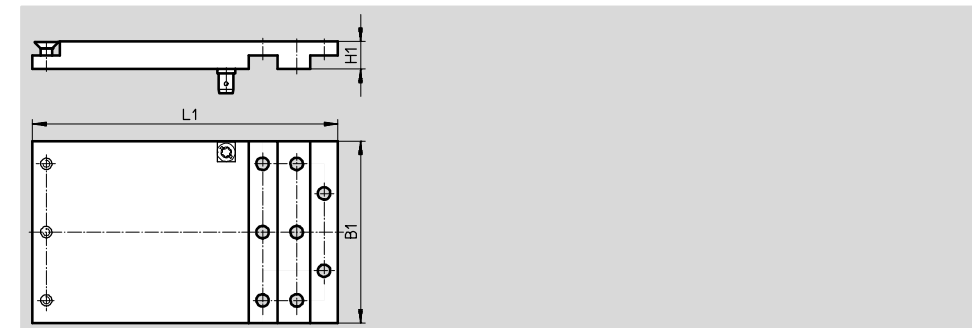
| Dimensions and ordering data | | | | | | | | | | | | | |
|------------------------------|-----|-----|----|-----|----|----|-------|-----|-----|-------------------|------------|----------|--------------------|
| Type | B1 | B2 | B3 | H1 | H2 | H3 | L1 | L2 | L3 | CRC ¹⁾ | Weight [g] | Part No. | Type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

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

Installation kit
HMIM-LP

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

Installation components for long strokes

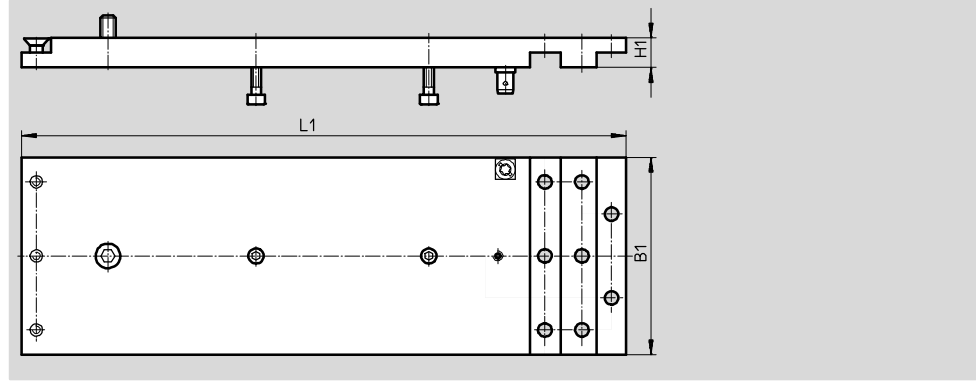
Technical data



Installation kit HMID-LP

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



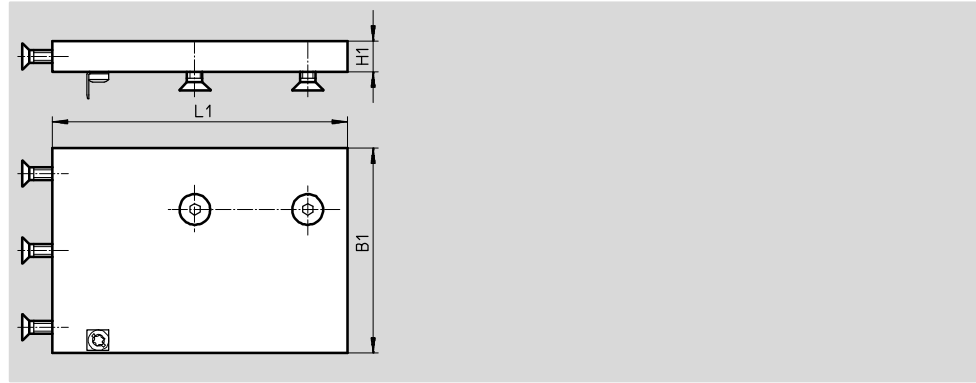
| Dimensions and ordering data | | | | | | | |
|------------------------------|----|----|-----|-------------------|------------|----------|---------|
| Type | B1 | H1 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
| HMID-LP | 80 | 12 | 285 | 2 | 700 | 539 363 | HMID-LP |

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

Installation kit HMIO-AP

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

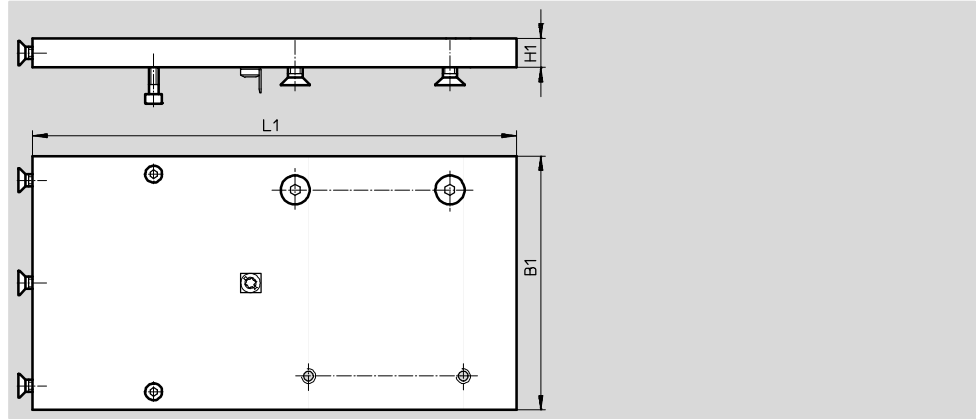
Installation components for long strokes

Technical data

Installation kit
HMIYF-RF/DL

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



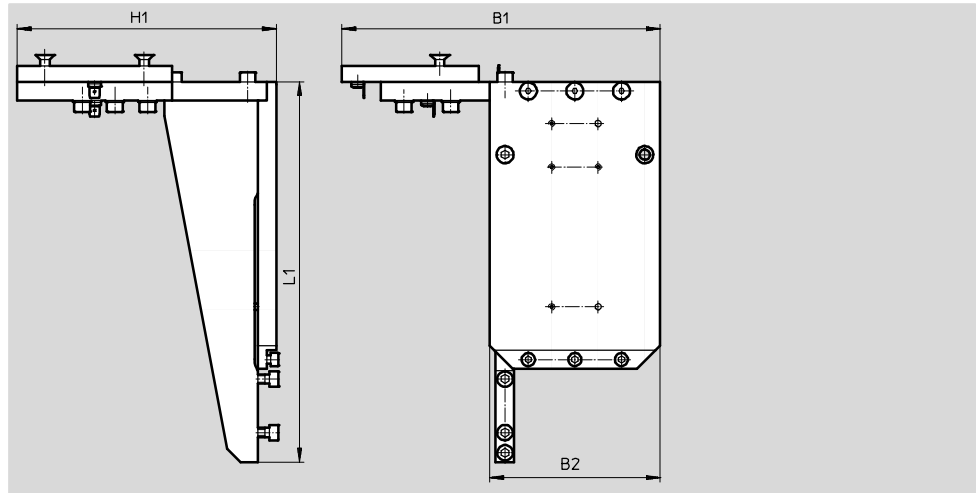
| Dimensions and ordering data | | | | | | | | |
|------------------------------|-----|----|-----|-------------------|------------|----------|---------------|--|
| Type | B1 | H1 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type | |
| HMIYF-RF/DL25 | 105 | 12 | 200 | 2 | 700 | 539 659 | HMIYF-RF/DL25 | |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

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

Installation kit
HMIY-LP-E07

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

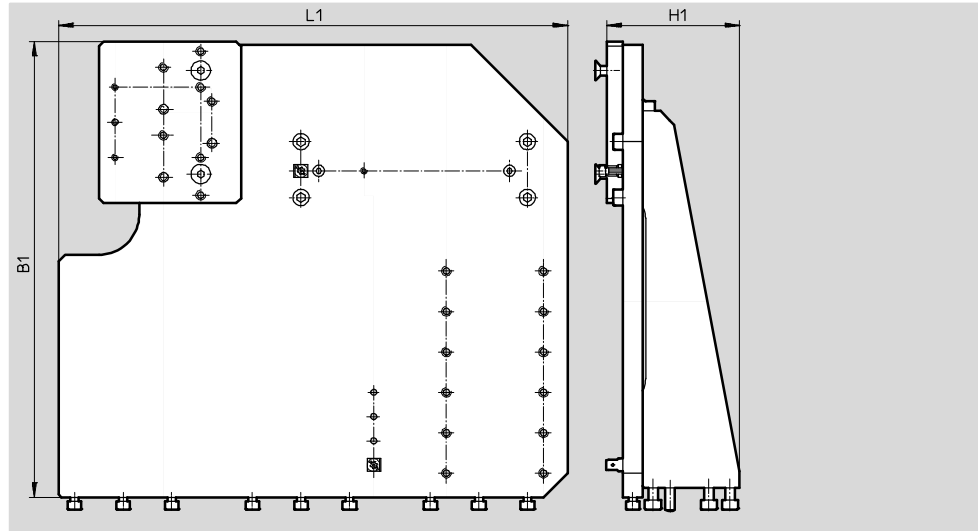
Installation components for long strokes

Technical data

FESTO

Installation kit HMIY-RP/FP-E07

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

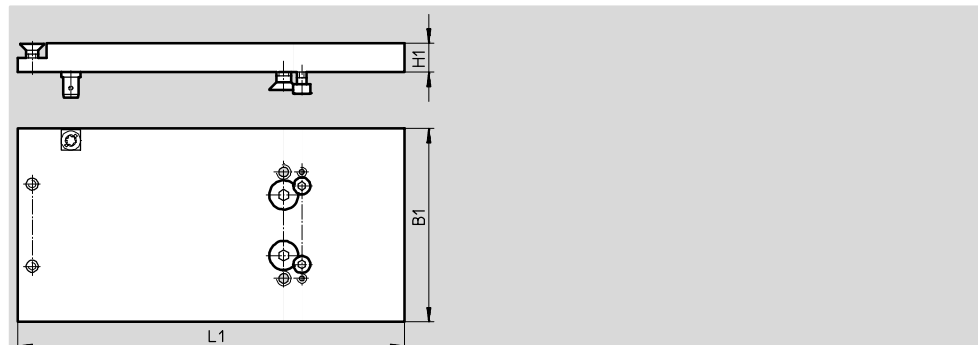


| Dimensions and ordering data | | | | | | | |
|------------------------------|-----|----|-----|-------------------|------------|----------|----------------|
| Type | B1 | H1 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
| HMIY | 282 | 82 | 315 | 2 | 3,450 | 566 889 | HMIY-RP/FP-E07 |

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

Installation kit HMIZB-E03

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



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

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

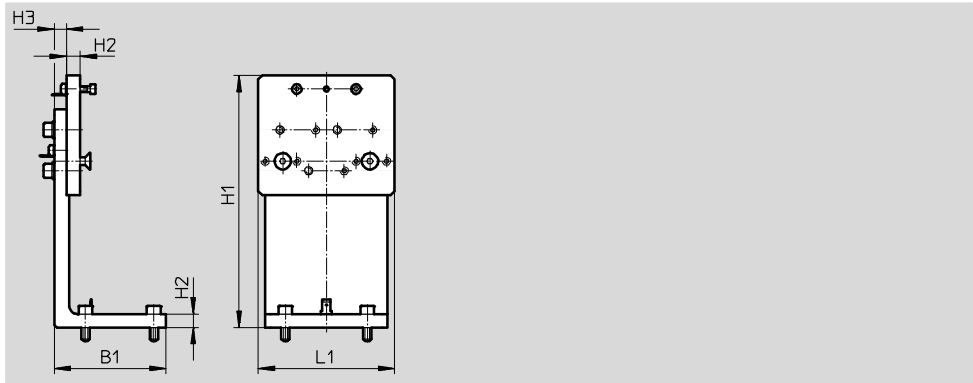
Installation components for long strokes

Technical data

Installation kit HMIW-E05/E07

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



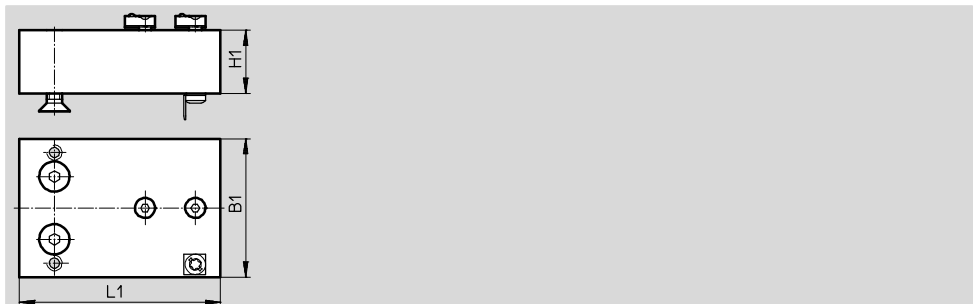
| Dimensions and ordering data | | | | | | | | | |
|------------------------------|----|-----|----|----|-----|-------------------|------------|----------|--------------|
| Type | B1 | H1 | H2 | H3 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
| HMIW | 82 | 185 | 10 | 9 | 100 | 2 | 900 | 566 885 | HMIW-E05/E07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

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

Installation kit HMIZF-E03

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

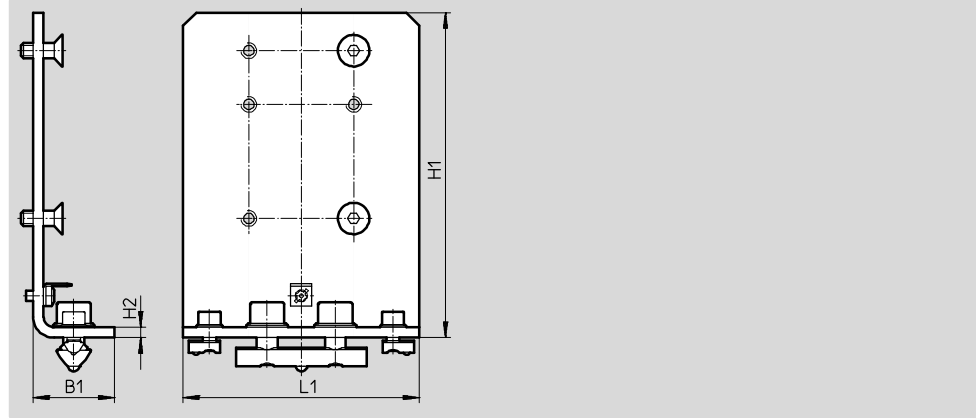
Installation components for long strokes

Technical data

Mounting kit
HMIZW-E05/E07-DL40/63

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

Material:
Galvanised steel
Free of copper, PTFE and silicone



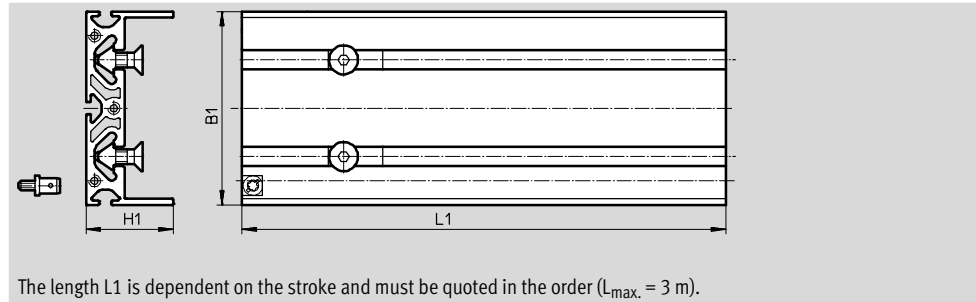
| Dimensions and ordering data | | | | | | | | |
|------------------------------|----|-----|----|----|-------------------|------------|----------|-----------------------|
| Type | B1 | H1 | H2 | L1 | CRC ¹⁾ | Weight [g] | Part No. | Type |
| HMIZW | 31 | 124 | 4 | 90 | 2 | 400 | 566 877 | HMIZW-E05/E07-DL40/63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

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

Support profile
HMIA

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

Material:
Anodised aluminium
Free of copper, PTFE and silicone



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

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

Product Range and Company Overview

A Complete Suite and Company Overview

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drivers



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



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

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 16,000 employees in 60 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.

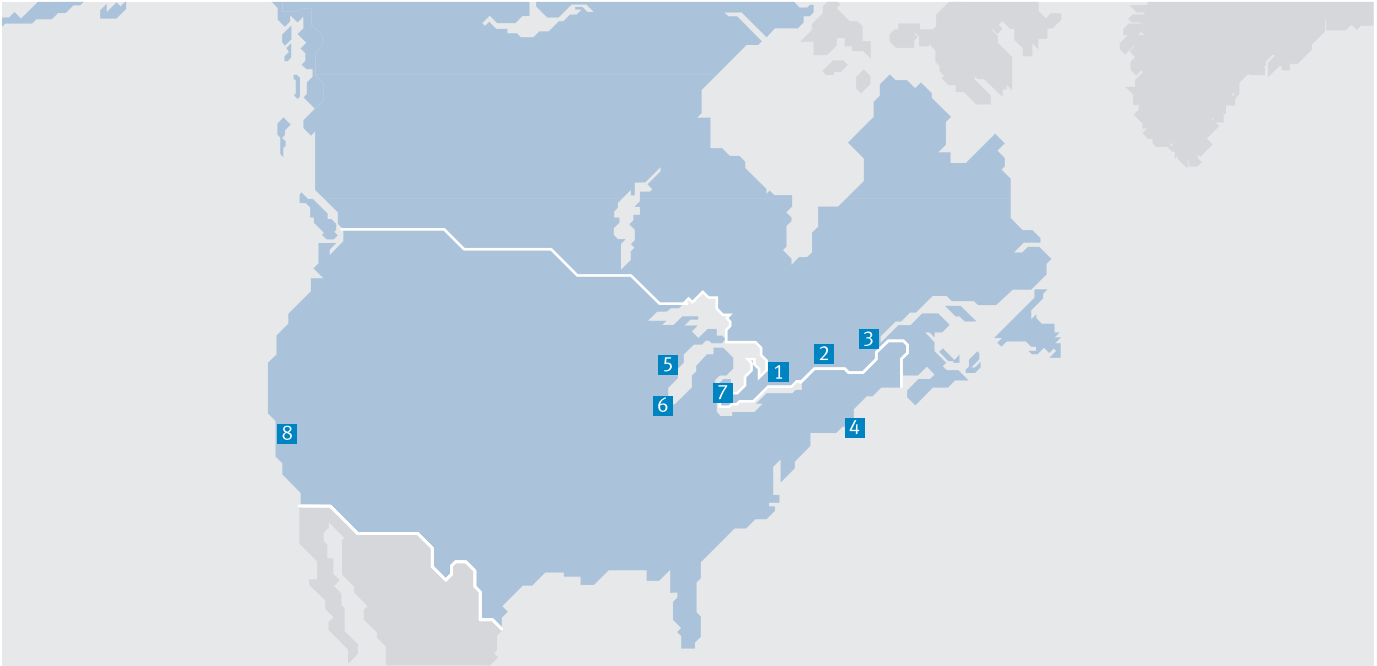


© Copyright 2013, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmental friendly printing plant.

Festo North America



**1 Festo Canada
Headquarters
Festo Inc.**
5300 Explorer Drive
Mississauga, ON
L4W 5G4

2 Montréal
5600, Trans-Canada
Pointe-Claire, QC
H9R 1B6

3 Québec City
2930, rue Watt#117
Québec, QC
G1X 4G3



**4 Festo United States
Headquarters
Festo Corporation**
395 Moreland Road
Hauppauge, NY
11788

5 Appleton
North 922 Tower View Drive, Suite N
Greenville, WI
54942

7 Detroit
1441 West Long Lake Road
Troy, MI
48098

6 Chicago
85 W Algonquin - Suite 340
Arlington Heights, IL
60005

8 Silicon Valley
4935 Southfront Road, Suite F
Livermore, CA
94550

Festo Regional Contact Center

Canadian Customers

Commercial Support:
Tel: 1 877 GO FESTO (1 877 463 3786)
Fax: 1 877 FX FESTO (1 877 393 3786)
Email: festo.canada@ca.festo.com

Technical Support:
Tel: 1 866 GO FESTO (1 866 463 3786)
Fax: 1 877 FX FESTO (1 877 393 3786)
Email: technical.support@ca.festo.com

USA Customers

Commercial Support:
Tel: 1 800 99 FESTO (1 800 993 3786)
Fax: 1 800 96 FESTO (1 800 963 3786)
Email: customer.service@us.festo.com

Technical Support:
Tel: 1 866 GO FESTO (1 866 463 3786)
Fax: 1 800 96 FESTO (1 800 963 3786)
Email: product.support@us.festo.com