

Angle adapters HMSVS



- Versatile precision interfaces
- Wide choice of mounting options

Angle adapters HMSVS

Key features



System components
Special function components

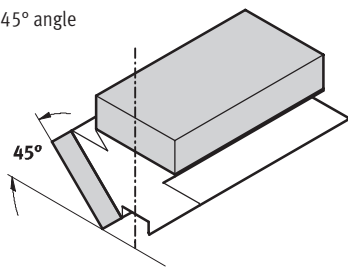
3.4



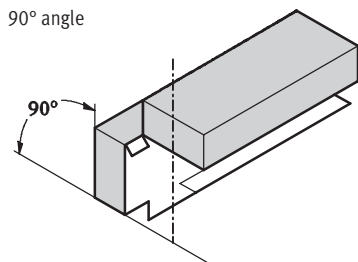
System product for handling and assembly technology

Mounting options

45° angle



90° angle



- Facilitates the mounting of grippers to semi-rotary drives for turret operation
- Wide choice of mounting options:
 - Dovetail mounting
 - Direct mounting
- Versatile precision interfaces using centring sleeves

Angle adapters HMSVS

Key features

Combination with drives and grippers
 Mounting on the basic component → 5 / 3.4-7



Adapter kits

- Direct mounting
- Dovetail mounting



Angle adapter HMSVS

- Interface between basic component and attachment component



Adjusting unit HMX



Adjusting unit HMX



Adjusting unit HMX

→ 5 / 3.4-20



Adapter kits

- Direct mounting
- Dovetail mounting



Mounting the attachment component → 5 / 3.4-11



Semi-rotary drives
DRQD



Grippers
HGD/HGP/HGR/HGW
Grippers
HGPM/HGWM
Parallel grippers
HGPP



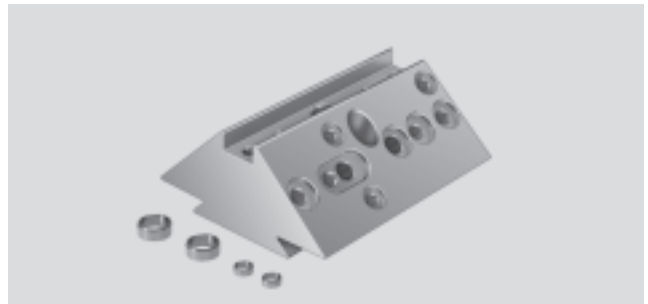
Mini slides
SLT

Angle adapters HMSVS

Technical data



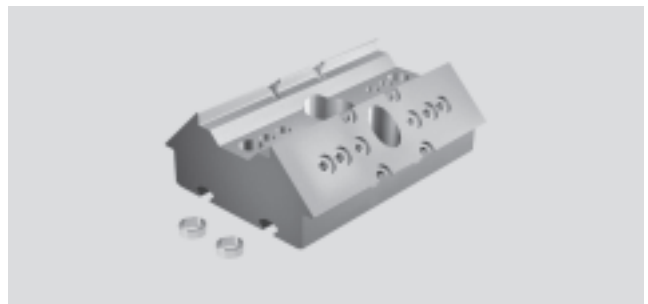
Angle adapter HMSVS-1



Angle adapter HMSVS-2



Angle adapter HMSVS-3



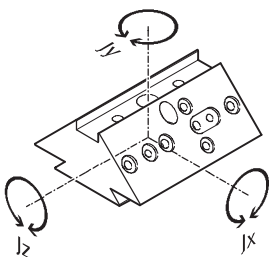
System components
Special function components

3.4

General technical data		HMSVS-1	HMSVS-2	HMSVS-3
Mass moments of inertia → Fig. 1	J_x [$\text{kgm}^2 \times 10^{-4}$]	0.774	0.630	1.056
	J_y [$\text{kgm}^2 \times 10^{-4}$]	0.968	0.957	1.427
	J_z [$\text{kgm}^2 \times 10^{-4}$]	0.342	0.457	0.520
Temperature range	[°C]	-20 ... +60		
Weights	[g]	156	647	769
Materials		Anodised aluminium		

Mass moments of inertia

Fig. 1



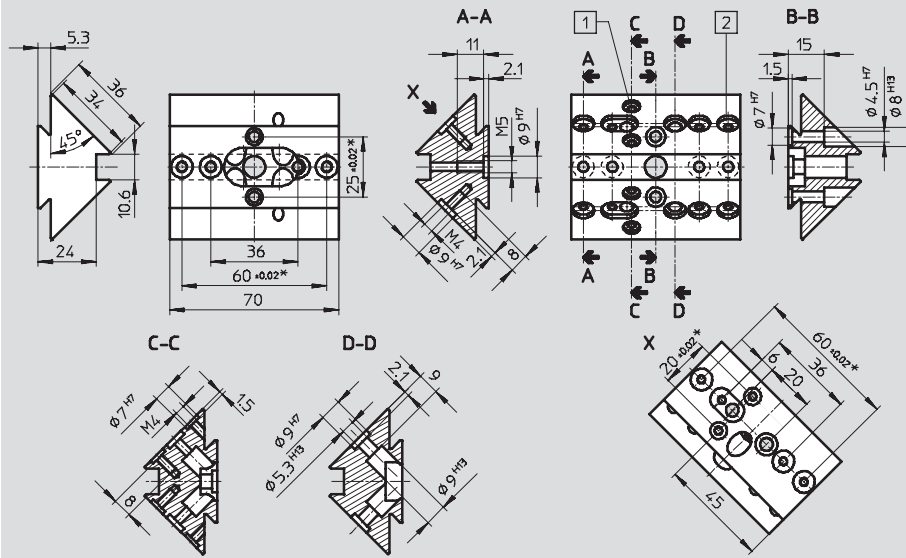
Angle adapters HMSVS

Technical data



Dimensions Download CAD data → www.festo.com/en/engineering

HMSVS-1

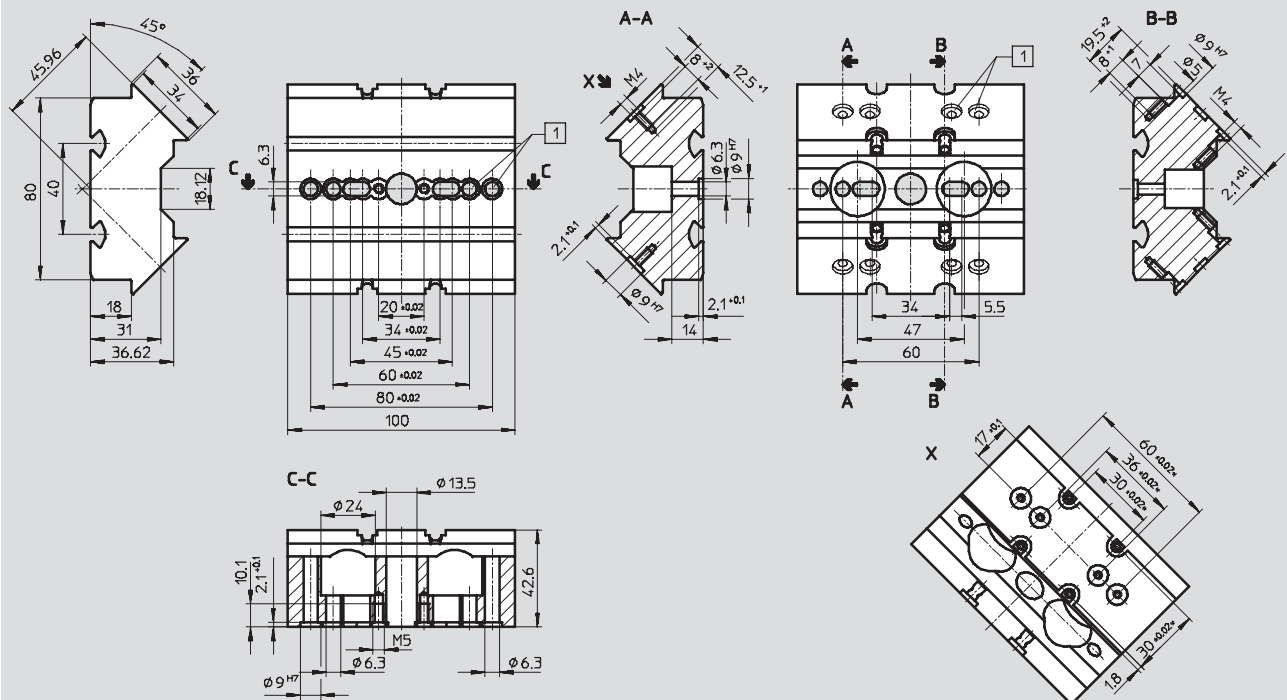


1 For centring sleeve ZBH-7
(2 pieces included in scope of delivery)

2 For centring sleeve ZBH-9
(2 pieces included in scope of delivery)

* Tolerances apply to countersinks.
The tolerance ± 0.1 applies to threads and drilled holes.

HMSVS-2



1 For centring sleeve ZBH-9
(2 pieces included in scope of delivery)

* Tolerances apply to countersinks.
The tolerance ± 0.1 applies to threads and drilled holes.

Angle adapters HMSVS

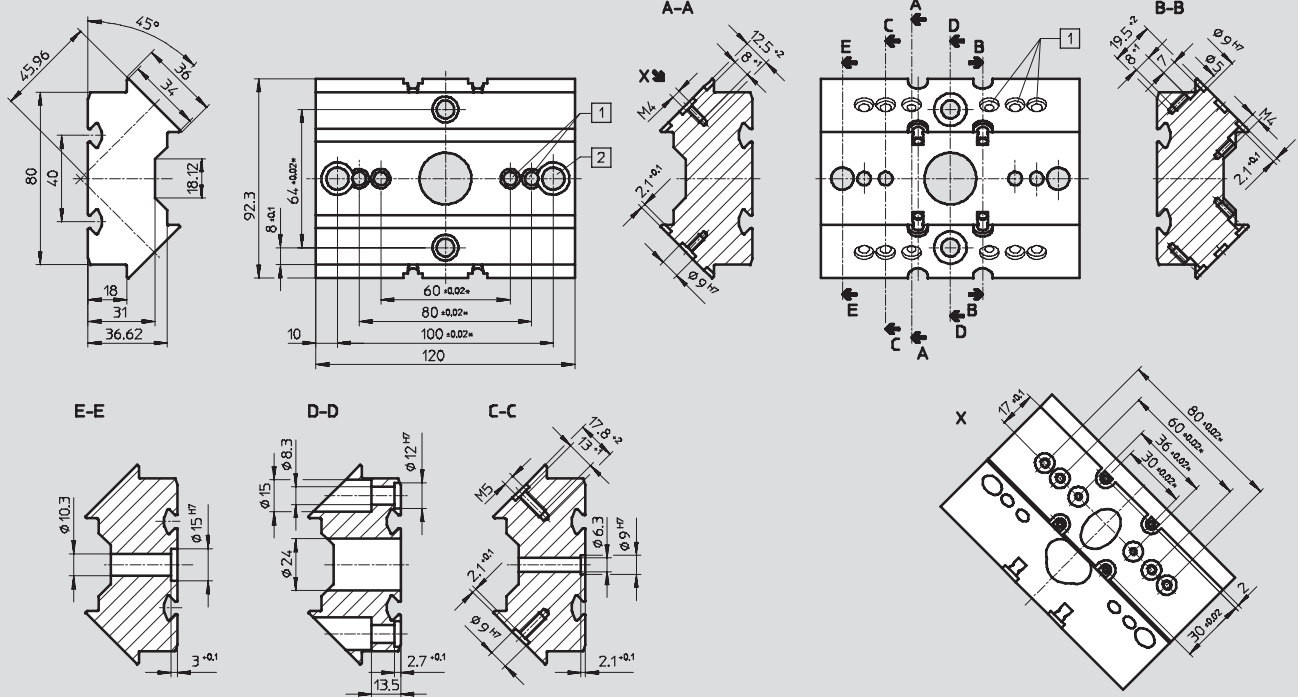
Technical data



Dimensions

Download CAD data → www.festo.com/en/engineering

HMSVS-3



1 For centring sleeve ZBH-9

2 For centring sleeve ZBH-15
(2 pieces of each included in scope of delivery)

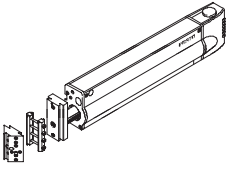
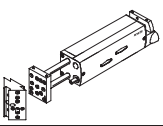
* Tolerances apply to countersinks.
The tolerance ± 0.1 applies to threads and drilled holes.

Ordering data

Part No.	Type	Part No.	Type	Part No.	Type
189 487	HMSVS-1	526 028	HMSVS-2	526 029	HMSVS-3

Angle adapters HMSVS

Technical data – Mounting on the basic component

Ordering data							
Basic component	Direct mounting ¹⁾			Dovetail mounting			
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3	
Linear module HMP							
	16	2x M5x25	2x M6x45	2x M6x45	177 647 HMSV-1	177 649 HMSV-3	177 649 HMSV-3
	20	2x M5x25	2x M6x45	2x M6x45	177 647 HMSV-1	177 649 HMSV-3	177 649 HMSV-3
	25	2x M5x30	2x M6x45	2x M6x45	177 647 HMSV-1	177 649 HMSV-3	177 649 HMSV-3
	32	–	2x M6x45	2x M6x45	177 647 HMSV-1	177 649 HMSV-3	177 649 HMSV-3
Linear module HMPL							
	16	2x M5x18	–	–	–	–	–
	20	2x M5x18	–	–	–	–	–

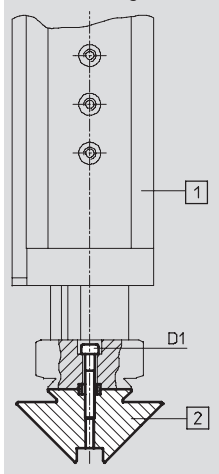
1) The screws listed are not included with the angle adapter.

Dimensions

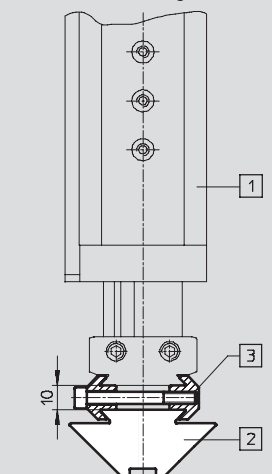
Download CAD data → www.festo.com/en/engineering

Linear module HMP/HMPL

Direct mounting



Dovetail mounting



- 1 Linear module HMP
- 2 Angle adapter HMSVS
- 3 Dovetail adapter kit HMSV

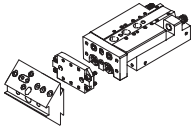
Basic component	Angle adapter	Dovetail adapter kit	Screws ¹⁾ DIN912 D1
HMP-16/-20	HMSVS-1	HMSV-1	M5x25
HMP-25			M5x30
HMP-32			–
HMP-...	HMSVS-2	HMSV-3	M6x45
HMP-...	HMSVS-3		
HMPL-...	–	–	M5x18

1) The screws listed are not included in the scope of delivery.

Angle adapters HMSVS

Technical data – Mounting on the basic component

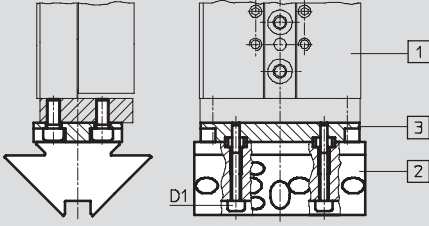


Ordering data							
Basic component	Direct mounting ¹⁾			Dovetail mounting			
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3	
Mini slide SLT							
	10	178 448 HAPS-2 + 2x M4x32	–	–	–	–	
	16	178 449 HAPS-3 + 2x M4x32	–	–	–	–	
	20	178 450 HAPS-4 + 2x M4x32	178 450 HAPS-4²⁾ + 2x M4x40	178 450 HAPS-4²⁾ + 2x M4x40	–	–	–
	25	178 451 HAPS-5 + 2x M4x32	178 451 HAPS-5²⁾ + 2x M4x40	178 451 HAPS-5²⁾ + 2x M4x40	–	–	–

- 1) The screws listed are not included with the angle adapter.
- 2) The following are additionally required: 2 screws to DIN 125 A 4.3

Dimensions Download CAD data → www.festo.com/en/engineering

Mini slide SLT



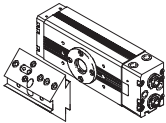
- 1 Mini slide SLT
- 2 Angle adapter HMSVS
- 3 Adapter kit HAPS

Basic component	Angle adapter	Adapter kit	Screws ¹⁾ DIN912 D1
SLT-10	HMSVS-1	HAPS-2	M4x32
SLT-16		HAPS-3	
SLT-20		HAPS-4	
SLT-25		HAPS-5	
SLT-20	HMSVS-2/-3	HAPS-4 ²⁾	M4x40
SLT-25		HAPS-5 ²⁾	

- 1) The screws listed are not included in the scope of delivery.
- 2) The following are additionally required: 2 screws to DIN 125 A 4.3

Angle adapters HMSVS

Technical data – Mounting on the basic component

Ordering data							
Basic component	Direct mounting ¹⁾			Dovetail mounting			
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3	
Semi-rotary drive DRQD							
	16	2x 186 717 ZBH-7²⁾ + 2x M4x20	–	–	–	–	
	20	2x 186 717 ZBH-7²⁾ + 2x M4x20	–	–	–	–	
	25	–	2x 150 927 ZBH-9²⁾ + 2x M6x40	–	–	–	
	32	–	2x 150 927 ZBH-9²⁾ + 2x M6x40	–	–	–	
	40	–	–	2x 189 653 ZBH-12²⁾ + 2x M8x25	–	–	–
	50	–	–	2x 189 653 ZBH-12²⁾ + 2x M8x25	–	–	–

- 1) The screws listed are not included with the angle adapter.
- 2) Scope of delivery: 10 per pack

Dimensions

Download CAD data → www.festo.com/en/engineering

Semi-rotary drive DRQD

Direct mounting

Variant 1

Variant 2

1 Semi-rotary drive DRQD

2 Angle adapter HMSVS

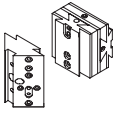
Basic component	Angle adapter	Screws ¹⁾
DRQD-16	HMSVS-1	DIN912 D1
DRQD-20		
DRQD-25	HMSVS-2	M6x40
DRQD-32		
DRQD-40	HMSVS-3	M8x25
DRQD-50		

- 1) The screws listed are not included in the scope of delivery.

Angle adapters HMSVS

Technical data – Mounting on the basic component



Ordering data							
Basic component	Direct mounting ¹⁾			Dovetail mounting			
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3	
Adjusting unit HMXV							
	1	2x M4x32	–	–	177 647 HMSV-1	177 647 HMSV-1	–
	3	–	–	–	177 649 HMSV-3	177 649 HMSV-3	177 649 HMSV-3

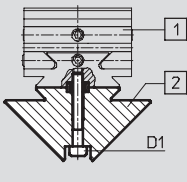
1) The screws listed are not included with the angle adapter.

Dimensions

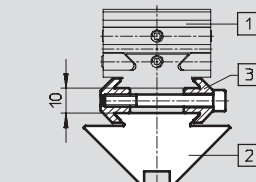
Adjusting unit HMXV

Download CAD data → www.festo.com/en/engineering

Direct mounting



Dovetail mounting



- 1 Adjusting unit HMXV
- 2 Angle adapter HMSVS
- 3 Dovetail adapter kit HMSV

System components
Special function components

3.4

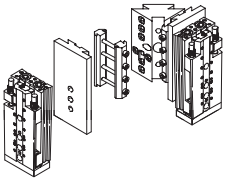
Basic component	Angle adapter	Dovetail adapter kit	Screws ¹⁾ DIN912 D1
HMXV-1	HMSVS-1	HMSV-1	M4x32
HMXV-3			–
HMXV-1	HMSVS-2	HMSV-3	–
HMXV-3			–
HMXV-3	HMSVS-3	–	–

1) The screws listed are not included in the scope of delivery.

Angle adapters HMSVS

Technical data – Mounting on the attachment component



Ordering data							
Attachment component	Direct mounting ¹⁾			Dovetail mounting			
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3	
Mini slide SLT							
	6	–	–	–	178 329 HMSV-34	178 329 HMSV-34	178 329 HMSV-34
	10	2x 186 717 ZBH-7 ²⁾ + 2x M4x30	–	–	178 330 HMSV-35	178 330 HMSV-35	178 330 HMSV-35
	16	–	–	–	178 331 HMSV-36	178 331 HMSV-36	178 331 HMSV-36
	20	–	–	–	178 332 HMSV-37	178 332 HMSV-37	178 332 HMSV-37
	25	–	–	–	–	178 332 HMSV-37	178 332 HMSV-37

- 1) The screws listed are not included with the angle adapter.
 2) Scope of delivery: 10 per pack

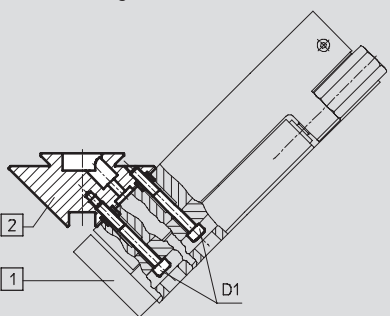
System components
Special function components

3.4

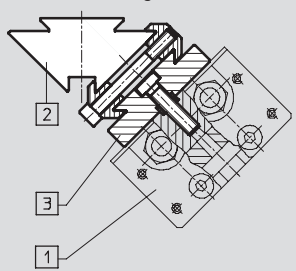
Dimensions Download CAD data → www.festo.com/en/engineering

Mini slide SLT

Direct mounting



Dovetail mounting



1 Mini slide SLT
 2 Angle adapter HMSVS
 3 Dovetail adapter kit HMSV

Attachment component	Angle adapter	Dovetail adapter kit	Screws ¹⁾ DIN912 D1
SLT-6	HMSVS-1/-2/-3	HMSV-34	–
SLT-10	HMSVS-1	HMSV-35	M4x30
	HMSVS-2/-3		–
SLT-16	HMSVS-1/-2/-3	HMSV-36	
SLT-20		HMSV-37	
SLT-25	HMSVS-2/-3		

- 1) The screws listed are not included in the scope of delivery.

Angle adapters HMSVS

Technical data – Mounting the attachment component



Ordering data							
Attachment component	Direct mounting ¹⁾			Dovetail mounting			
	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	
	Type	Type	Type	Type	Type	Type	
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3	
Semi-rotary drive DRQD							
	6	193 920 HAPG-36-S2	193 920 HAPG-36-S2	193 920 HAPG-36-S2	–	–	–
	8	2x M4x20	2x M4x20	2x M4x20	–	–	–
	12	2x M4x25	2x M4x25	2x M4x25	–	–	–
	16	2x M4x35	2x M4x35	192 707 HAPG-38	177 656 HMSV-10	177 656 HMSV-10	177 656 HMSV-10
	20	2x M4x35	2x M4x40	192 707 HAPG-38	177 656 HMSV-10	177 656 HMSV-10	177 656 HMSV-10
	25	2x 150 927 ZBH-9²⁾ + 2x M5x45	2x 150 927 ZBH-9²⁾ + 2x M6x40	2x M5x50 or 2x 150 927 ZBH-9²⁾ + 2x M6x 40	–	177 660 HMSV-14	177 660 HMSV-14
	32	–	2x 150 927 ZBH-9²⁾ + 2x M6x40	2x M5x55 or 2x 150 927 ZBH-9²⁾ + 2x M6x40	–	177 665 HMSV-19	177 665 HMSV-19
	40	–	–	2x 191 409 ZBH-15²⁾ + 2x M10x50	–	–	–
	50	–	–	2x 191 409 ZBH-15²⁾ + 2x M10x50	–	–	–
	Dimensions → 5 / 3.4-13						

- 1) The screws listed are not included with the angle adapter.
- 2) Scope of delivery: 10 per pack

Angle adapters HMSVS

Technical data – Mounting the attachment component

Dimensions Download CAD data → www.festo.com/en/engineering

Semi-rotary drive DRQD

Direct mounting

Dovetail mounting

1 Semi-rotary drive DRQD
 2 Angle adapter HMSVS
 3 Dovetail adapter kit HMSV

Attachment component	Angle adapter	Adapter kit		Screws ¹⁾
		Dovetail mounting	Adapter plate	DIN912 D1
DRQD-6	HMSVS-1/-2/-3	-	HAPG-36-S2	-
DRQD-8			-	M4x20
DRQD-12			-	M4x25
DRQD-16/-20	HMSVS-1/-2	HMSV-10	-	M4x35
	HMSVS-3		HAPG-38	-
DRQD-25	HMSVS-2	HMSV-14	-	M5x50
	HMSVS-3			
DRQD-32	HMSVS-2	HMSV-19	-	-
	HMSVS-3			M5x55

1) The screws listed are not included in the scope of delivery.

Dimensions Download CAD data → www.festo.com/en/engineering

Semi-rotary drive DRQD

Direct mounting
HMSVS-1

HMSVS-2/3

1 Semi-rotary drive DRQD
 2 Angle adapter HMSVS

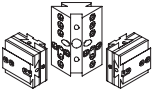
Attachment component	Angle adapter	Screws ¹⁾ DIN912 D1
DRQD-25	HMSVS-1	M5x45
DRQD-25	HMSVS-2	M6x40
DRQD-32		
DRQD-25	HMSVS-3	M6x40
DRQD-32		
DRQD-40	HMSVS-3	M10x50
DRQD-50		

1) The screws listed are not included in the scope of delivery.

Angle adapters HMSVS

Technical data – Mounting the attachment component



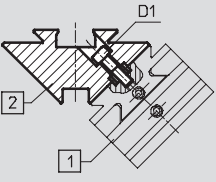
Ordering data						
Attachment component	Direct mounting ¹⁾			Dovetail mounting		
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3
Adjusting unit HMXY						
	1	2x M5 x 16	–	–	177 647 HMSV-1	177 647 HMSV-1
	3	–	–	–	177 649 HMSV-3	177 649 HMSV-3

1) The screws listed are not included with the angle adapter.

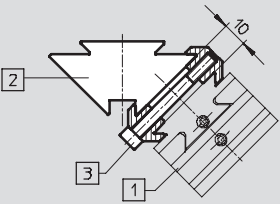
Dimensions Download CAD data → www.festo.com/en/engineering

Adjusting unit HMXY

Direct mounting



Dovetail mounting



1 Adjusting unit HMXY
 2 Angle adapter HMSVS
 3 Dovetail adapter kit HMSV

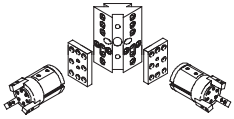
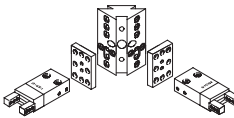
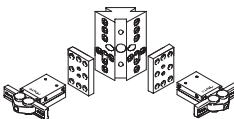
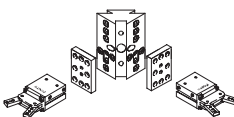
Attachment component	Angle adapter	Dovetail adapter kit	Screws ¹⁾ DIN912 D1
HMXY-1	HMSVS-1	HMSV-1	M5x16
	HMSVS-2/-3		–
HMXY-3	HMSVS-1/-2/-3	HMSV-3	–

1) The screws listed are not included in the scope of delivery.

Angle adapters HMSVS

Technical data – Mounting the attachment component



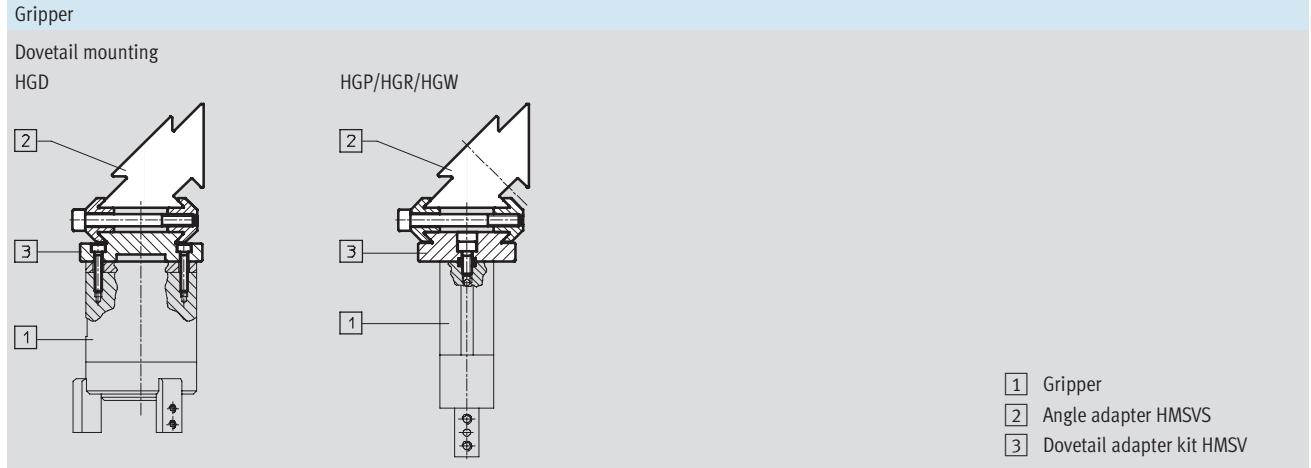
Ordering data						
Attachment component	Direct mounting			Dovetail mounting		
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3
3-point gripper HGD						
 Dimensions → 5 / 3.4-16	16	193 921 HAPG-36-S3	193 921 HAPG-36-S3	193 921 HAPG-36-S3	–	–
	32	–	–	–	178 212 HMSV-32	178 212 HMSV-32
	50	–	–	–	–	178 213 HMSV-33
Parallel gripper HGP						
 Dimensions → 5 / 3.4-16	6	192 706 HAPG-37-S1 ¹⁾	192 706 HAPG-37-S1 ¹⁾	192 706 HAPG-37-S1 ¹⁾	–	–
	10	192 705 HAPG-36-S1 ¹⁾	192 705 HAPG-36-S1 ¹⁾	192 705 HAPG-36-S1 ¹⁾	177 767 HMSV-27	177 767 HMSV-27
	16	193 922 HAPG-37-S4 ¹⁾	193 922 HAPG-37-S4 ¹⁾	193 922 HAPG-37-S4 ¹⁾	177 768 HMSV-28	177 768 HMSV-28
	20	193 922 HAPG-37-S4 ¹⁾	193 922 HAPG-37-S4 ¹⁾	193 922 HAPG-37-S4 ¹⁾	177 768 HMSV-28	177 768 HMSV-28
	25	–	–	–	177 769 HMSV-29	177 769 HMSV-29
	35	–	–	–	–	177 770 HMSV-30
Radial gripper HGR						
 Dimensions → 5 / 3.4-16	10	192 706 HAPG-37-S1 ¹⁾	192 706 HAPG-37-S1 ¹⁾	192 706 HAPG-37-S1 ¹⁾	–	–
	16	192 705 HAPG-36-S1 ¹⁾	192 705 HAPG-36-S1 ¹⁾	192 705 HAPG-36-S1 ¹⁾	177 767 HMSV-27	177 767 HMSV-27
	25	193 922 HAPG-37-S4 ²⁾	193 922 HAPG-37-S4 ²⁾	193 922 HAPG-37-S4 ²⁾	177 768 HMSV-28	177 768 HMSV-28
	32	–	–	–	177 769 HMSV-29	177 769 HMSV-29
	40	–	–	–	–	177 770 HMSV-30
Angle gripper HGW						
 Dimensions → 5 / 3.4-16	10	192 706 HAPG-37-S1 ¹⁾	192 706 HAPG-37-S1 ¹⁾	192 706 HAPG-37-S1 ¹⁾	–	–
	16	192 705 HAPG-36-S1 ¹⁾	192 705 HAPG-36-S1 ¹⁾	192 705 HAPG-36-S1 ¹⁾	177 767 HMSV-27	177 767 HMSV-27
	25	193 922 HAPG-37-S4 ²⁾	193 922 HAPG-37-S4 ²⁾	193 922 HAPG-37-S4 ²⁾	177 768 HMSV-28	177 768 HMSV-28
	32	–	–	–	177 769 HMSV-29	177 769 HMSV-29
	40	–	–	–	–	177 770 HMSV-30

1) The following are additionally required: 4x M4x25 screws.
 2) Only mountable in one gripping direction.

Angle adapters HMSVS

Technical data – Mounting the attachment component

Dimensions Download CAD data → www.festo.com/en/engineering



Attachment component	Angle adapter	Adapter kit	
		Dovetail mounting	Adapter plate
HGD-16	HMSVS-1/-2/-3	–	HAPG-36-S3
HGD-32		HMSV-32	–
HGD-50	HMSVS-3	HMSV-33	
HGP-6/HGR-10/HGW-10	HMSVS-1/-2/-3	–	HAPG-37-S1
HGP-10/HGR-16/HGW-16		HMSV-27	HAPG-36-S1
HGP-16/HGP-20/HGR-25/ HGW-25		HMSV-28	HAPG-37-S4
HGP-25/HGR-32/HGW-32		HMSV-29	–
HGP-35/HGR-40/HGW-40	HMSVS-2/-3	HMSV-30	

Angle adapters HMSVS

Technical data – Mounting the attachment component



Ordering data							
Attachment component	Direct mounting			Dovetail mounting ¹⁾			
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMSVS-1	HMSVS-2	HMSVS-3	HMSVS-1	HMSVS-2	HMSVS-3	
Parallel gripper HGPP							
	12	–	–	–	177 649 HMSV-3 191 262 HAPG-44	177 649 HMSV-3 191 262 HAPG-44	177 649 HMSV-3 191 262 HAPG-44
	16	–	–	–	177 649 HMSV-3 191 263 HAPG-45	177 649 HMSV-3 191 263 HAPG-45	177 649 HMSV-3 191 263 HAPG-45
	20	–	–	–	177 649 HMSV-3 191 265 HAPG-47	177 649 HMSV-3 191 265 HAPG-47	177 649 HMSV-3 191 265 HAPG-47
	25	–	–	–	177 649 HMSV-3 529 019 HAPG-59	177 649 HMSV-3 529 019 HAPG-59	177 649 HMSV-3 529 019 HAPG-59
	32	–	–	–	–	177 649 HMSV-3 529 020 HAPG-61	177 649 HMSV-3 529 020 HAPG-61

1) Both adapter kits are required for mounting.

Dimensions

Parallel gripper HGPP

Dovetail mounting

Download CAD data → www.festo.com/en/engineering

- 1 Parallel gripper HGPP
- 2 Angle adapter HMSVS
- 3 Dovetail adapter kit HMSV
- 4 Adapter kit HAPG

Attachment component	Angle adapter	Adapter kit	
		Dovetail mounting	Adapter plate
HGPP-12	HMSVS-1/-2/-3	HMSV-3	HAPG-44
HGPP-16			HAPG-45
HGPP-20			HAPG-47
HGPP-25	HMSVS-1/-2/-3	HMSV-3	HAPG-59
HGPP-32			HAPG-61

Adjusting units HMX



- Permits easy adjustment
- Wide choice of mounting options

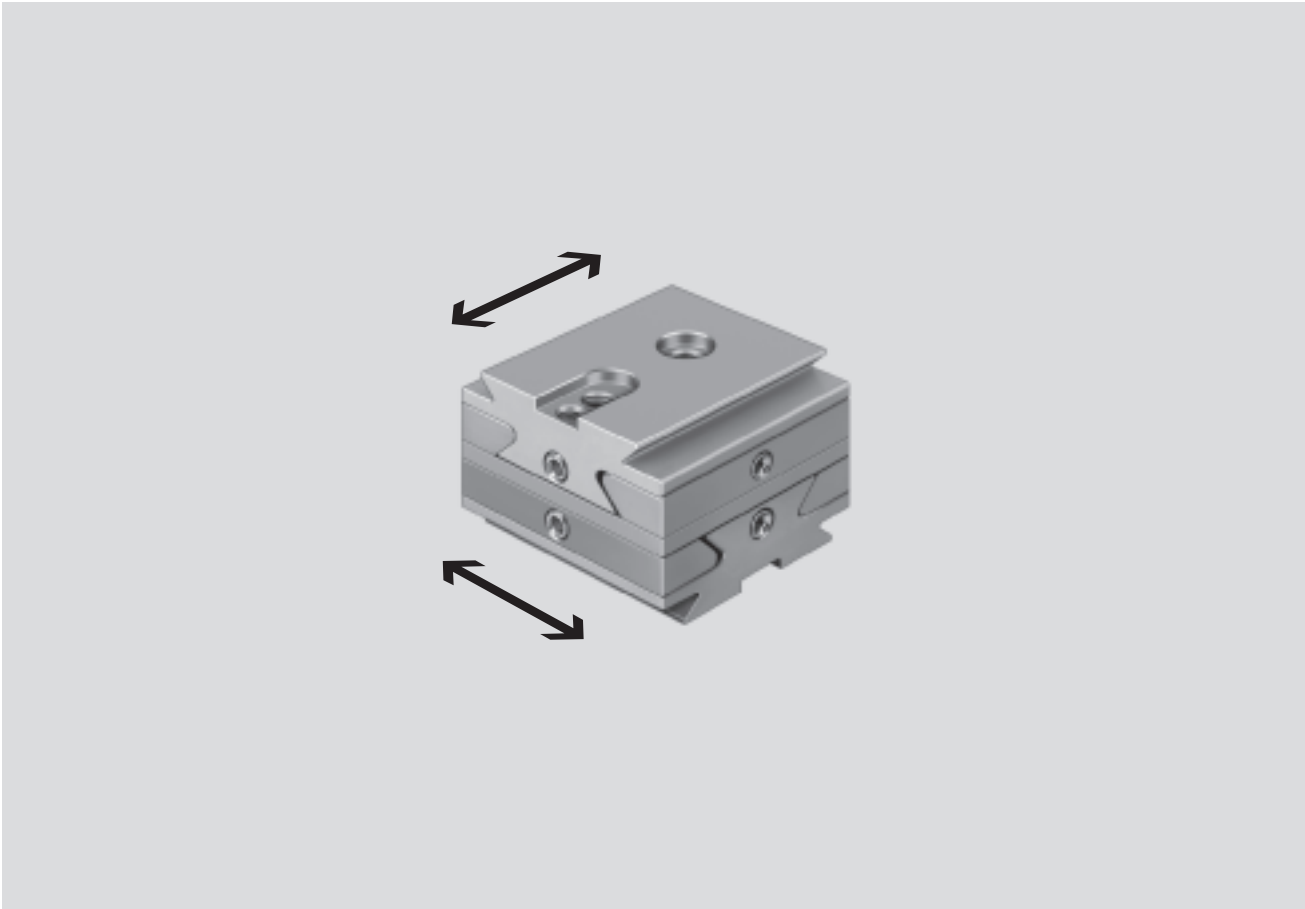
Adjusting units HMX

Key features



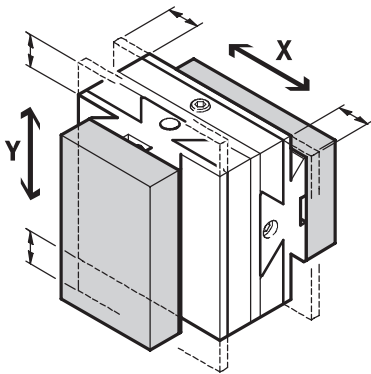
System components
Special function components

3.4



System product for handling and assembly technology

Mounting options



- Precision adjusting unit in X and Y directions
- Allows easy adjustment of grippers to obtain precise gripping position
- Versatile precision interfaces using centring sleeves
- Wide choice of mounting options:
 - Dovetail mounting
 - Direct mounting

Adjusting units HMXY

Key features

Combining drives and grippers

Mounting on the basic components → 5 / 3.4-24

Semi-rotary drives
DRQD



Linear modules
HMP/HMPL



Mini slides
SLT



Adapter kits

- Direct mounting
- Dovetail mounting



Adjusting unit HMXY

- Interface between basic component and attachment component



Angle adapter
HMSVS



Angle adapter
HMSVS



Angle adapter HMSVS

→ 5 / 3.4-2



Adapter kits

- Direct mounting
- Dovetail mounting



Mounting the attachment component → 5 / 3.4-27



Semi-rotary drives
DRQD



Grippers
HGD/HGP/HGR/HGW
Grippers
HGPM/HGWM
Parallel grippers
HGPP



Mini slides
SLT

Adjusting units HMX

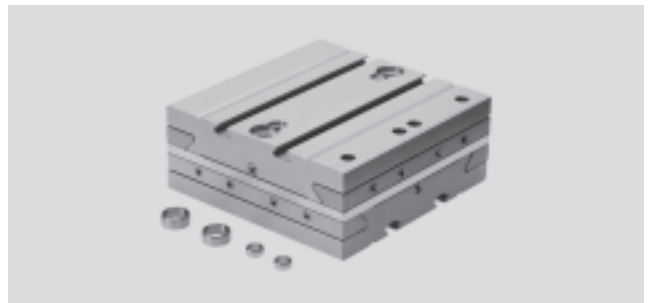
Technical data



Adjusting unit HMX-1



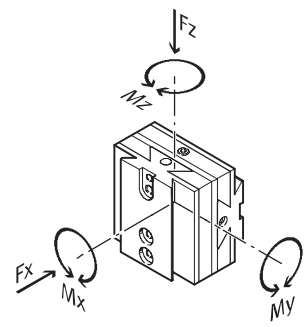
Adjusting unit HMX-3



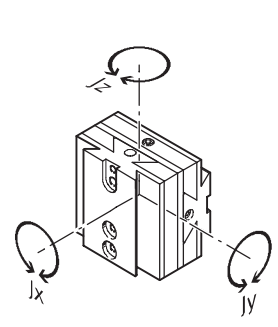
System components
Special function components
3.4

General technical data			HMX-1	HMX-3	
Adjustment travel	y	[mm]	7.5	7.5	
	z	[mm]	7.5	7.5	
Max. static characteristic load values → Fig. 1	Forces	F_x	[N]	50	160
		F_z	[N]	50	160
	Torques	M_x	[Nm]	1.4	20
		M_y	[Nm]	1.4	20
		M_z	[Nm]	1.4	20
Mass moments of inertia → Fig. 2	J_x	[kgm ² x10 ⁻⁴]	0.499	8.650	
	J_y	[kgm ² x10 ⁻⁴]	0.361	5.121	
	J_z	[kgm ² x10 ⁻⁴]	0.361	5.121	
Temperature range		[°C]	+5 ... +60		
Weight		[g]	155	1892	
Materials	Anodised aluminium				

Max. permissible static characteristic load values
Fig. 1



Mass moments of inertia
Fig. 2



Adjusting units HMX

Technical data

Dimensions Download CAD data → www.festo.com/en/engineering

HMX-1

Technical drawing of HMX-1 adjusting unit showing front, side, and rear views with dimensions and callouts. Dimensions include 44⁺¹, 36^{+0.1}, 20^{+0.1}, 10, 5, 44⁺¹, 1.9, 2.1, 1, 2, 3, 4, $\phi 9^{H7}$, M4, 6.4*, 32.4, 15, 20^{+0.1}, 36^{+0.1}, 5, M5, M4, 9^{H7}.

- 1 Locking screw
- 2 Adjusting screw
- 3 Centring hole/slot
- 4 For centring sleeve ZBH-9 (2 pieces included in scope of delivery)

* For M4 and M5 threads

HMX-3

Technical drawing of HMX-3 adjusting unit showing front, side, and rear views with dimensions and callouts. Dimensions include 120⁺¹, 80^{+0.1}, 60^{+0.1}, 60^{+0.1}, 60^{+0.1}, 120⁺¹, 60^{+0.1}, 120⁺¹, 12, 12, 2.1^{+0.1}, 80^{+0.1}, 100^{+0.1}, 1, 2, $\phi 15^{H7}$, M8, 1.9, M5, $\phi 9^{H7}$.

- 1 For centring sleeve ZBH-9 (2 pieces included in scope of delivery)
- 2 For centring sleeve ZBH-15 (2 pieces included in scope of delivery)

Ordering data			
Part No.	Type	Part No.	Type
187 582	HMX-1	526 030	HMX-3

System components
Special function components

Adjusting units HMXY

Technical data – Mounting on the basic component



Ordering data					
Basic component	Direct mounting ¹⁾		Dovetail mounting		
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMXY-1	HMXY-3	HMXY-1	HMXY-3	
Linear module HMP					
	16	–	2x M5x5	177 647 HMSV-1	177 649 HMSV-3
	20	–	2x M5x25	177 647 HMSV-1	177 649 HMSV-3
	25	–	2x M5x30	177 647 HMSV-1	177 649 HMSV-3
	32	–	2x M5x30	177 647 HMSV-1	177 649 HMSV-3
Linear module HMPL					
	12	2x M5x16	–	–	–
	16	2x M5x16	–	–	–
	20	2x M5x16	–	–	–

1) The screws listed are not included with the adjusting unit.

Dimensions Download CAD data → www.festo.com/en/engineering

Linear module HMP/HMPL

Direct mounting

Dovetail mounting

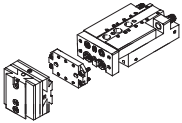
1 Linear module HMP
2 Adjusting unit HMXY
3 Dovetail adapter kit HMSV

Basic component	Adjusting unit	Dovetail adapter kit	Screws ¹⁾ DIN912 D1
HMP-16/-20	HMXY-1	HMSV-1	–
	HMXY-3	HMSV-3	M5x25
HMP-25/-32	HMXY-1	HMSV-1	–
	HMXY-3	HMSV-3	M5x30
HMPL-12/-16/-20	HMXY-1	–	M5x16

1) The screws listed are not included in the scope of delivery.

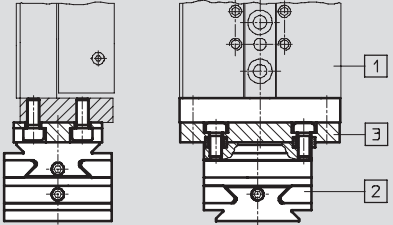
Adjusting units HMXY

Technical data – Mounting on the basic component

Ordering data				
Basic component	Direct mounting		Dovetail mounting	
	Part No. Type	Part No. Type	Part No. Type	Part No. Type
	HMXY-1	HMXY-3	HMXY-1	HMXY-3
Mini slide SLT				
	16	191 266 HAPG-48	–	–
	20	191 268 HAPG-50	–	–
	25	191 270 HAPG-52	191 270 HAPG-52	–

Dimensions Download CAD data → www.festo.com/en/engineering

Mini slide SLT



1 Mini slide SLT

2 Adjusting unit HMXY

3 Adapter kit HAPG

Basic component	Adjusting unit	Adapter kit
SLT-16	HMXY-1	HAPG-48
SLT-20		HAPG-50
SLT-25		HAPG-52
	HMXY-3	HAPG-52

Adjusting units HMXY

Technical data – Mounting on the basic component



Ordering data					
Basic component	Direct mounting ¹⁾		Dovetail mounting		
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMXY-1	HMXY-3	HMXY-1	HMXY-3	
Angle adapter HMSVS					
	1	2x M5x16	–	177 647 HMSV-1	177 649 HMSV-3
	2	–	–	177 647 HMSV-1	177 649 HMSV-3
	3	–	–	177 647 HMSV-1	177 649 HMSV-3

1) The screws listed are not included with the adjusting unit.

Dimensions

Angle adapter HMSVS

Direct mounting

Dovetail mounting

- 1 Angle adapter HMSVS
- 2 Adjusting unit HMXY
- 3 Dovetail adapter kit HMSV

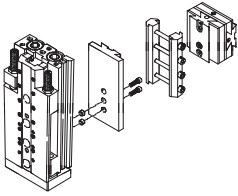
Download CAD data → www.festo.com/en/engineering

Basic component	Adjusting unit	Dovetail adapter kit	Screws ¹⁾ DIN912 D1
HMSVS-1	HMXY-1	HMSV-1	M5x16
	HMXY-3	HMSV-3	–
HMSVS-2/-3	HMXY-1	HMSV-1	
	HMXY-3	HMSV-3	

1) The screws listed are not included in the scope of delivery.

Adjusting units HMXY

Technical data – Mounting the attachment component

Ordering data				
Attachment component	Direct mounting ¹⁾		Dovetail mounting	
	Part No. Type	Part No. Type	Part No. Type	Part No. Type
	HMXY-1	HMXY-3	HMXY-1	HMXY-3
Mini slide SLT				
	6	–	178 329 HMSV-34	178 329 HMSV-34
	10	–	178 330 HMSV-35	178 330 HMSV-35
	16	2x M5x38	178 331 HMSV-36	178 331 HMSV-36
	20	–	178 332 HMSV-37	178 332 HMSV-37
	25	–	–	178 332 HMSV-37

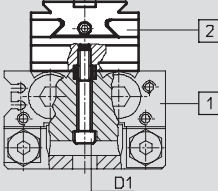
1) The screws listed are not included with the adjusting unit.

Dimensions

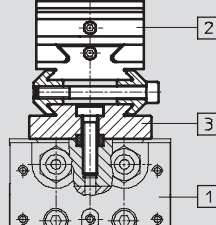
Download CAD data → www.festo.com/en/engineering

Mini slide SLT

Direct mounting



Dovetail mounting



- 1 Mini slide SLT
- 2 Adjusting unit HMXY
- 3 Dovetail adapter kit HMSV

Attachment component	Adjusting unit	Dovetail adapter kit	Screws ¹⁾ DIN912 D1
SLT-06	HMXY-1/-3	HMSV-34	–
SLT-10		HMSV-35	–
SLT-16	HMXY-1	HMSV-36	M5x38
	HMXY-3		–
SLT-20	HMXY-1/-3	HMSV-37	–
SLT-25	HMXY-3		–

1) The screws listed are not included in the scope of delivery.

Adjusting units HMX Y

Technical data – Mounting the attachment component



Ordering data					
Attachment component	Direct mounting ¹⁾			Dovetail mounting	
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	Part No. Type
	HMX Y-1	HMX Y-3	HMX Y-1	HMX Y-3	
Semi-rotary drive DRQD					
	6	193 920 HAPG-36-S2	–	–	–
	8	2x M4x20	–	–	–
	12	2x M4x25	–	–	–
	16	192 707 HAPG-38	–	177 656 HMSV-10	177 656 HMSV-10
	20	192 707 HAPG-38	–	177 656 HMSV-10	177 656 HMSV-10
	25	–	–	–	177 660 HMSV-14
	32	–	2x M5x55	–	177 665 HMSV-19
	40	–	2x M8x75 ²⁾	–	–
	50	–	2x M8x90 ³⁾	–	–

- 1) The screws listed are not included with the adjusting unit.
- 2) The terminal length should be 60 mm.
- 3) The terminal length should be 75 mm.

3.4

Dimensions Download CAD data → www.festo.com/en/engineering

Semi-rotary drive DRQD

Direct mounting

Dovetail mounting

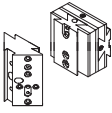
1 Semi-rotary drive DRQD
2 Adjusting unit HMX Y
3 Dovetail adapter kit HMSV

Attachment component	Adjusting unit	Dovetail adapter kit		Screws ¹⁾ DIN912 D1
		Dovetail mounting	Adapter plate	
DRQD-06	HMX Y-1	–	HAPG-36-S2	–
DRQD-08		–	–	M4x20
DRQD-12		–	–	M4x25
DRQD-16/-20	HMX Y-3	HMSV-10	HAPG-38	–
DRQD-25		HMSV-14	–	–
DRQD-32		HMSV-19	–	M5x55
DRQD-40		–	–	M8x75 ²⁾
DRQD-50		–	–	M8x90 ³⁾

- 1) The screws listed are not included in the scope of delivery.
- 2) The terminal length should be 60 mm.
- 3) The terminal length should be 75 mm.

Adjusting units HMXY

Technical data – Mounting the attachment component

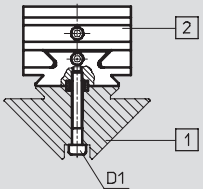
Ordering data					
Attachment component	Direct mounting ¹⁾		Dovetail mounting		
	Part No. Type	Part No. Type	Part No. Type	Part No. Type	
	HMXY-1	HMXY-3	HMXY-1	HMXY-3	
Angle adapter HMSVS					
	1	2x M4x32	–	177 647 HMSV-1	177 649 HMSV-3
	2	–	2x M5x40	177 647 HMSV-1	177 649 HMSV-3
	3	–	2x M5x40	–	177 649 HMSV-3

1) The screws listed are not included with the adjusting unit.

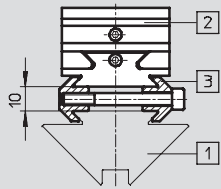
Dimensions Download CAD data → www.festo.com/en/engineering

Angle adapter HMSVS

Direct mounting



Dovetail mounting



1 Angle adapter HMSVS
 2 Adjusting unit HMXY
 3 Dovetail adapter kit HMSV

Attachment component	Adjusting unit	Dovetail adapter kit	Screws ¹⁾ DIN912 D1
HMSVS-1	HMXY-1	HMSV-1	M4x32
	HMXY-3	HMSV-3	–
HMSVS-2	HMXY-1	HMSV-1	M5x40
	HMXY-3	HMSV-3	
HMSVS-3	HMXY-3	HMSV-3	

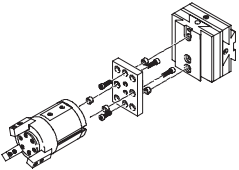
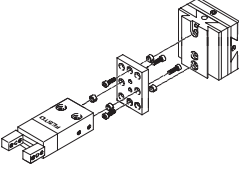
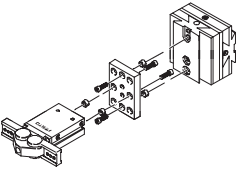
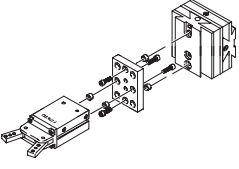
1) The screws listed are not included in the scope of delivery.

Adjusting units HMX

Technical data – Mounting the attachment component



System components
Special function components
3.4

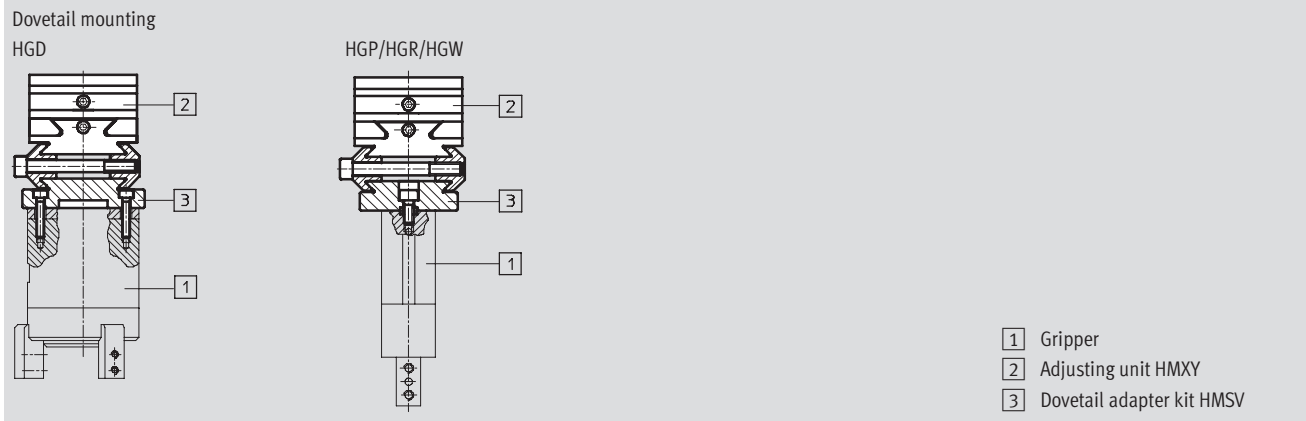
Ordering data				
Attachment component	Direct mounting		Dovetail mounting	
	Part No. Type	Part No. Type	Part No. Type	Part No. Type
	HMX-1	HMX-3	HMX-1	HMX-3
3-point gripper HGD				
	16	193 921 HAPG-36-S3	–	–
	32	–	–	178 212 HMSV-32
	50	–	–	178 213 HMSV-33
Dimensions → 5 / 3.4-31				
Parallel gripper HGP				
	6	192 706 HAPG-37-S1	–	–
	10	192 705 HAPG-36-S1	–	177 767 HMSV-27
	16	193 922 HAPG-37-S4	–	177 768 HMSV-28
	20	193 922 HAPG-37-S4	–	177 768 HMSV-28
	25	–	–	177 769 HMSV-29
	35	–	–	177 770 HMSV-30
Dimensions → 5 / 3.4-31				
Radial gripper HGR				
	10	192 706 HAPG-37-S1	–	–
	16	192 705 HAPG-36-S1	–	177 767 HMSV-27
	25	193 922 HAPG-37-S4	–	177 768 HMSV-28
	32	–	–	177 769 HMSV-29
	40	–	–	177 770 HMSV-30
Dimensions → 5 / 3.4-31				
Angle gripper HGW				
	10	192 706 HAPG-37-S1	–	–
	16	192 705 HAPG-36-S1	–	177 767 HMSV-27
	25	193 922 HAPG-37-S4	–	177 768 HMSV-28
	32	–	–	177 769 HMSV-29
	40	–	–	177 770 HMSV-30
Dimensions → 5 / 3.4-31				

Adjusting units HMXY

Technical data – Mounting the attachment component

Dimensions Download CAD data → www.festo.com/en/engineering

Gripper



Attachment component	Adjusting unit	Dovetail adapter kit	
		Dovetail mounting	Adapter plate
HGD-16	HMXY-1	–	HAPG-36-S3
HGD-32	HMXY-3	HMSV-32	–
HGD-50	HMXY-3	HMSV-33	–
HGP-6/HGR-10/HGW-10	HMXY-1	–	HAPG-37-S1
HGP-10/HGR-16/HGW-16	HMXY-1	HMSV-27	HAPG-36-S1
	HMXY-3		–
HGP-16/HGP-20/HGR-25/HGW-25	HMXY-1	HMSV-28	HAPG-37-S4
	HMXY-3		–
HGP-25/HGR-32/HGW-32	HMXY-1/-3	HMSV-29	–
HGP-35/HGR-40/HGW-40	HMXY-3	HMSV-30	–

System components
Special function components

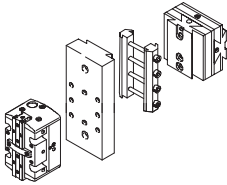
3.4

Adjusting units HMXY

Technical data – Mounting the attachment component



System components
Special function components

Ordering data				
Attachment component	Direct mounting		Dovetail mounting ¹⁾	
	Part No. Type	Part No. Type	Part No. Type	Part No. Type
	HMXY-1	HMXY-3	HMXY-1	HMXY-3
Parallel gripper HGPP				
	12	–	163 239 HAVB-3 191 262 HAPG-44	177 649 HMSV-3 191 262 HAPG-44
	16	–	163 239 HAVB-3 191 263 HAPG-45	177 649 HMSV-3 191 263 HAPG-45
	20	–	163 239 HAVB-3 191 265 HAPG-47	177 649 HMSV-3 191 265 HAPG-47
	25	–	163 239 HAVB-3 529 019 HAPG-59	177 649 HMSV-3 529 019 HAPG-59
	32	–	–	177 653 HMSV-7 529 020 HAPG-61

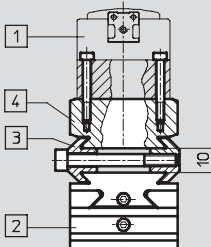
1) Both adapter kits are required for mounting.

3.4

Dimensions

Parallel gripper HGPP

Dovetail mounting



Download CAD data → www.festo.com/en/engineering

- 1 Parallel gripper HGPP
- 2 Adjusting unit HMXY
- 3 Dovetail adapter kit HMSV
- 4 Adapter kit HAPG

Attachment component	Adjusting unit	Dovetail adapter kit	
		Dovetail mounting	Adapter plate
HGPP-10	HMXY-1	HAVB-3	–
HGPP-12	HMXY-1	HAVB-3	HAPG-44
	HMXY-3	HMSV-3	
HGPP-16	HMXY-1	HAVB-3	HAPG-45
	HMXY-3	HMSV-3	
HGPP-20	HMXY-1	HAVB-3	HAPG-47
	HMXY-3	HMSV-3	
HGPP-25	HMXY-1	HAVB-3	HAPG-59
	HMXY-3	HMSV-3	
HGPP-32	HMXY-3	HMSV-7	HAPG-61