



- Versatile precision interfaces
- Wide choice of mounting options

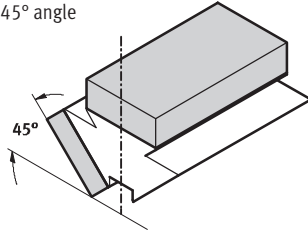
# Angle adapters HMSVS

Key features

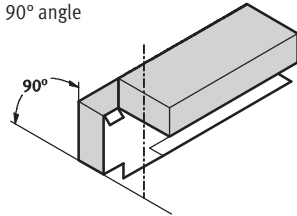
## Key features at a glance

### Mounting options

45° angle



90° angle



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

## Combination with drives and grippers

### Mounting on the basic component → 6

Linear modules  
HMP/HMPL



Mini slides  
DGSL



Mini slides  
SLT



Semi-rotary drives  
DRQD



Adapter kits

- Direct mounting
- Dovetail mounting

Angle adapter HMSVS

- Interface between basic component and attachment component

Adjusting unit HMXY

→ 2

Adapter kits

- Direct mounting
- Dovetail mounting

### Mounting the attachment component → 12



Mini slides  
DGSL



Mini slides  
SLT



Semi-rotary drives  
DRQD

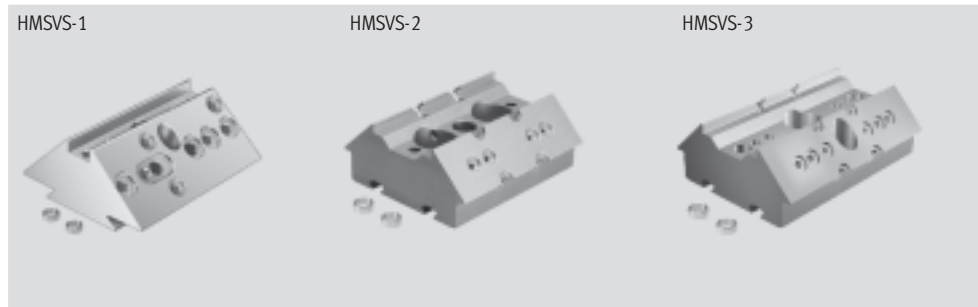


Grippers  
HGD, HGP, HGR, HGW  
HGPP, HGPI  
Parallel grippers, micro  
HGPM, HGWM

# Angle adapters HMSVS

Technical data

Angle adapter

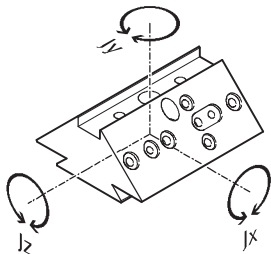


General technical data		HMSVS-1	HMSVS-2	HMSVS-3
Mass moment of inertia → Fig. 1	$J_x$ [ $\text{kgm}^2 \times 10^{-4}$ ]	0.774	0.630	1.056
	$J_y$ [ $\text{kgm}^2 \times 10^{-4}$ ]	0.968	0.957	1.427
	$J_z$ [ $\text{kgm}^2 \times 10^{-4}$ ]	0.342	0.457	0.520
Weights	[g]	156	647	769
Ambient temperature	[°C]	-20 ... +60		
Corrosion resistance class CRC <sup>1)</sup>		2		
Materials		Anodised aluminium		
Note on materials		Free of copper, PTFE and silicone		

1) Corrosion resistance class 2 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.

## Mass moments of inertia

Fig. 1



# Angle adapters HMSVS

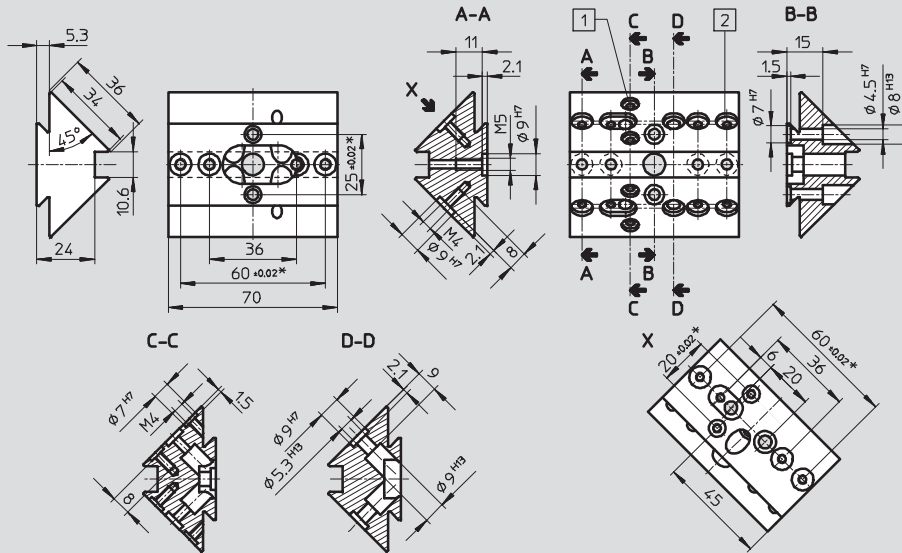
Technical data

FESTO

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

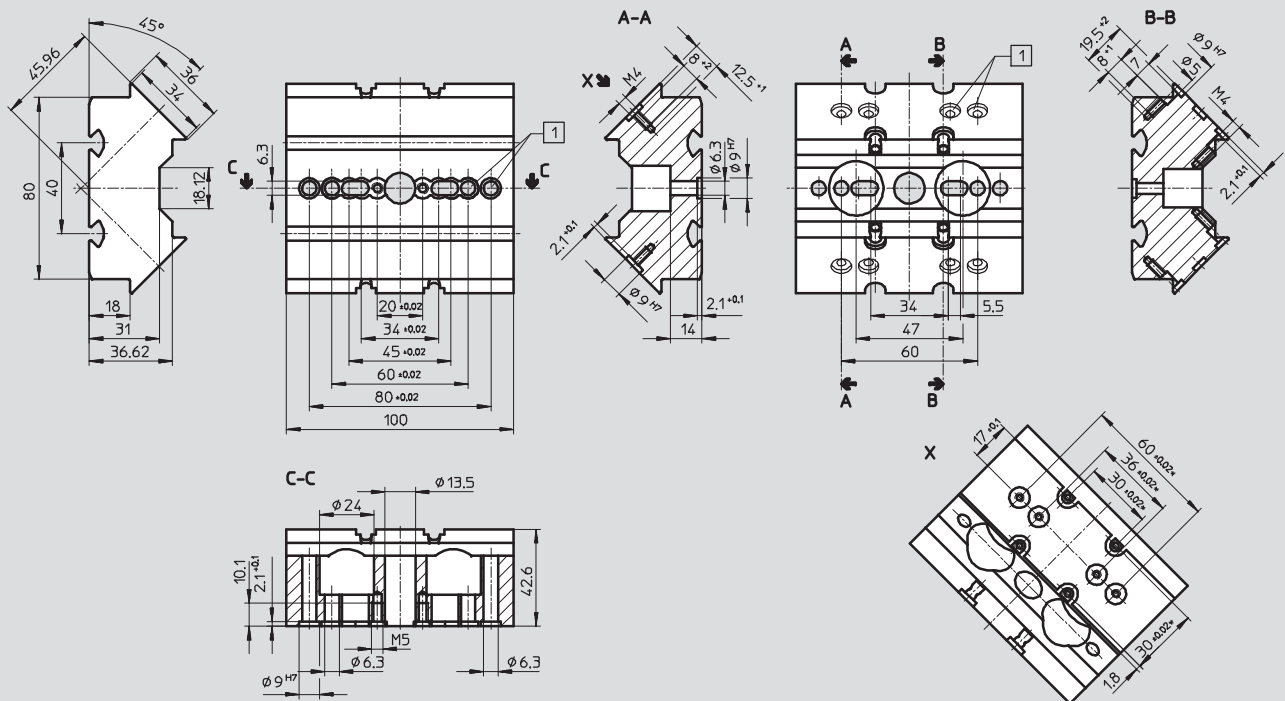
### HMSVS-1



- 1 For centring sleeve ZBH-7
- 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

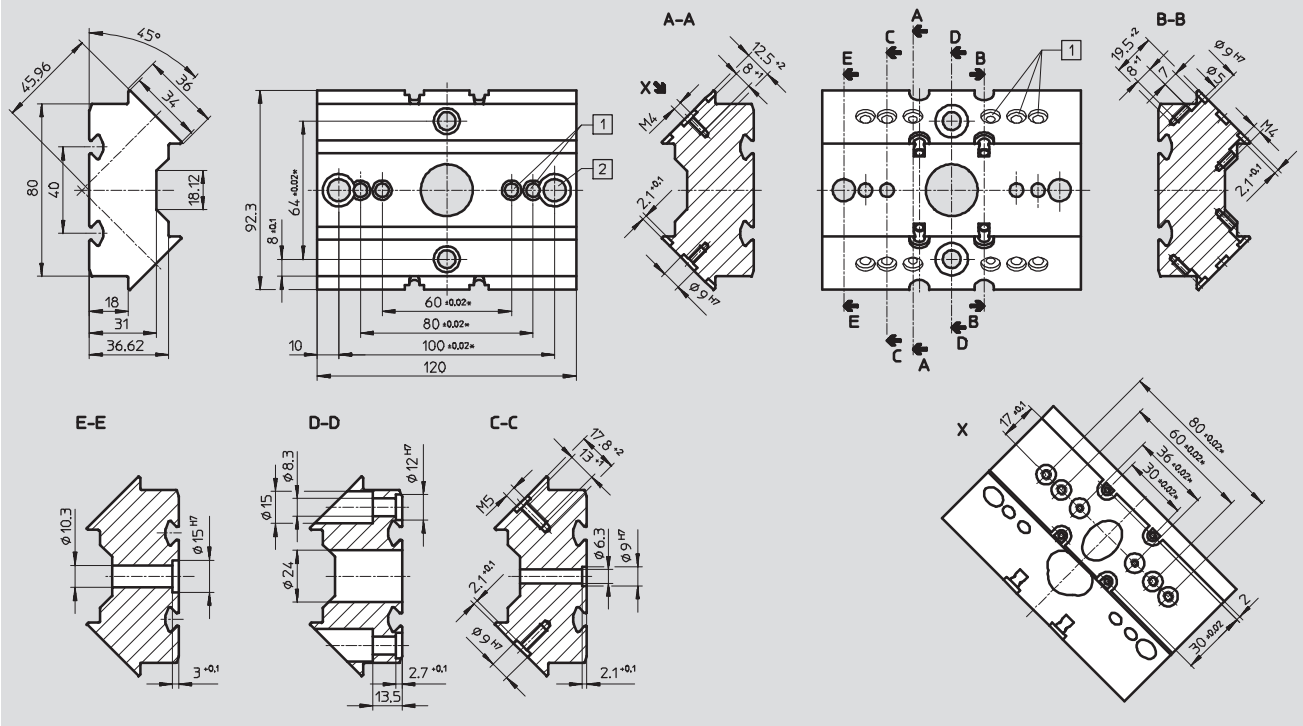
Technical data

FESTO

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

HMSVS-3



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

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

## Ordering data

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

# Angle adapters HMSVS

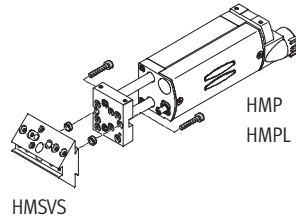
Technical data – Mounting on the basic component

## Mounting on linear module HMP/HMPL

Material:

Adapter kit HMSV: Wrought aluminium alloy

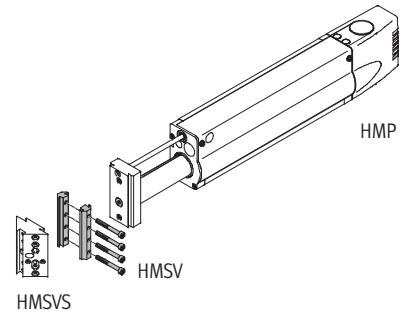
Free of copper, PTFE and silicone



HMSVS

HMP  
HMPL

Direct mounting



HMSVS

HMSV

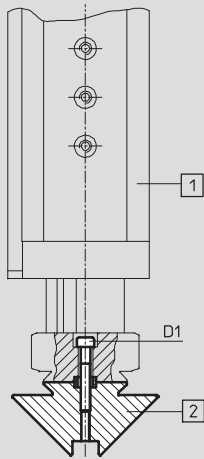
HMP

Dovetail mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

### Direct mounting



- 1 Linear module HMP/HMPL
- 2 Angle adapter HMSVS

Basic component	Angle adapter	Screws <sup>1)</sup> D1
HMP-16/20	HMSVS-1	2x M5x25
HMP-25		2x M5x30
HMP-16/20/25/32	HMSVS-2	2x M6x45
HMP-16/20/25/32		2x M6x45
HMP-16/20	HMSVS-1	2x M5x18

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

# Angle adapters HMSVS

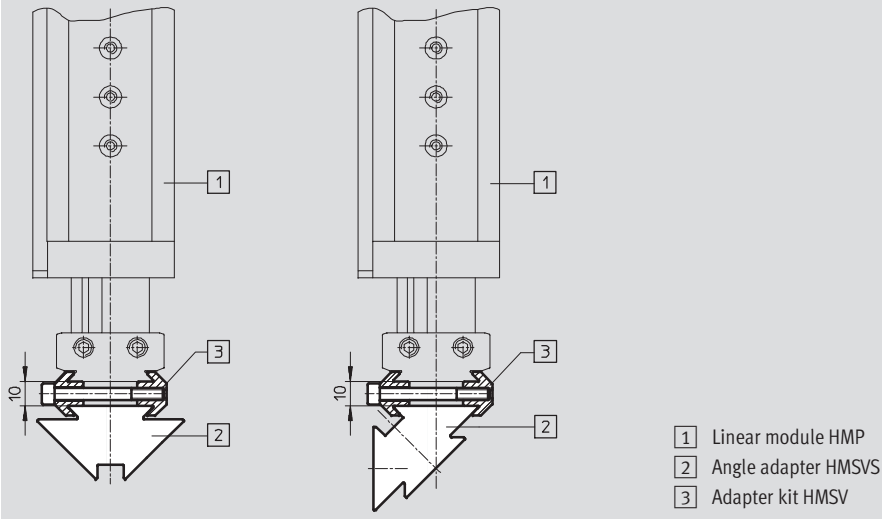
Technical data – Mounting on the basic component

## Mounting on linear module HMP/HMPL

### Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

#### Dovetail mounting



Basic component	Angle adapter	Part No.	Type
HMP-16/20/25/32	HMSVS-1	177 647	HMSV-1
	HMSVS-2	177 649	HMSV-3
	HMSVS-3		

# Angle adapters HMSVS

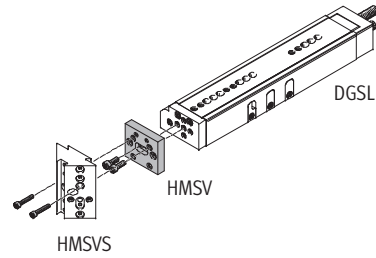
Technical data – Mounting on the basic component

## Mounting on mini slide DGSL

Material:

Adapter kit HMSV: Wrought aluminium alloy

Free of copper, PTFE and silicone

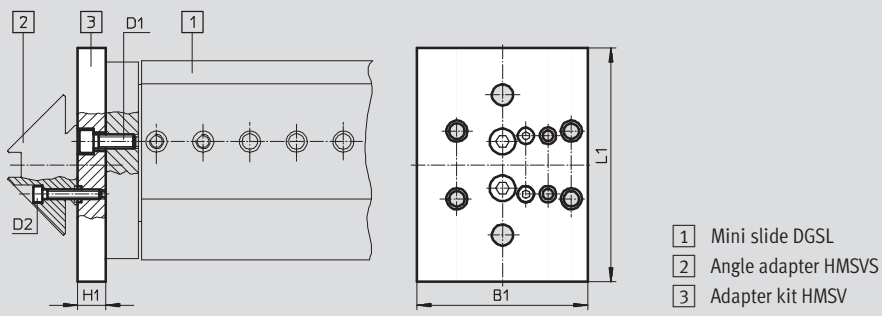


Direct mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

Direct mounting



Basic component	Angle adapter	B1	D1	D2	H1	L1	Part No.	Type
DGSL-12/16	HMSVS-1	43.5	M5	M4	10	50	548 785	HMSV-55
DGSL-20/25		73	M5	M4	12	100	548 786	HMSV-56

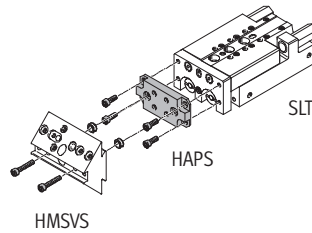


# Angle adapters HMSVS

Technical data – Mounting on the basic component

## Mounting on mini slide SLT

Material:  
 Adapter kit HAPS:  
 Wrought aluminium alloy  
 Free of copper, PTFE and silicone

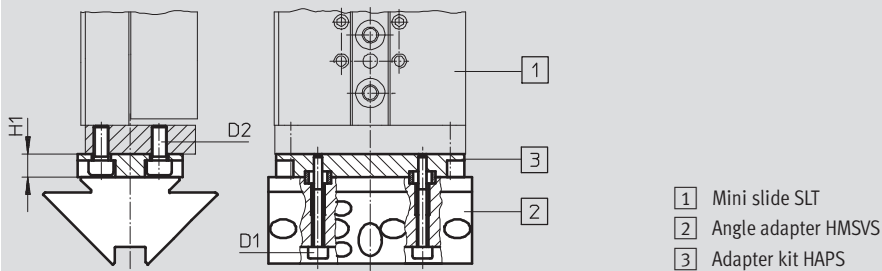


Direct mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

Direct mounting



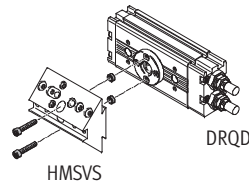
Basic component	Angle adapter	H1	Screws <sup>1)</sup> D1	Screws D2	Part No.	Type
SLT-10	HMSVS-1	8	2x M4x32	M4x10	178 448	HAPS-2
SLT-16		8	2x M4x32	M5x10	178 449	HAPS-3
SLT-20		10	2x M4x32	M5x12	178 450	HAPS-4
SLT-25		12	2x M4x32	M6x16	178 451	HAPS-5
SLT-20	HMSVS-2/3	10	2x M4x40	M5x12	178 450	HAPS-4 <sup>2)</sup>
SLT-25		12	2x M4x40	M6x16	178 451	HAPS-5 <sup>2)</sup>

1) The screws listed are not included with the angle adapter  
 2) Additional requirements: 2 washers to DIN 125 A 4.3

# Angle adapters HMSVS

Technical data – Mounting on the basic component

## Mounting on semi-rotary drive DRQD



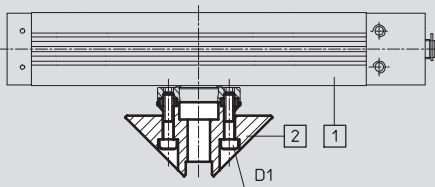
Direct mounting

### Dimensions and ordering data

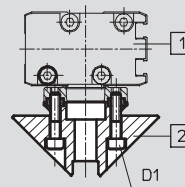
Download CAD data → [www.festo.com](http://www.festo.com)

Direct mounting

Variant 1



Variant 2



- 1 Semi-rotary drive DRQD
- 2 Angle adapter HMSVS

Basic component	Angle adapter	Screws <sup>1)</sup> D1	Part No.	Type
DRQD-B-16/20	HMSVS-1	2x M4x20	186 717	ZBH-7 <sup>2)</sup>
DRQD-B-25/32	HMSVS-2	2x M6x40	150 927	ZBH-9 <sup>2)</sup>
DRQD-40/50	HMSVS-3	2x M8x25	189 653	ZBH-12 <sup>2)</sup>

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

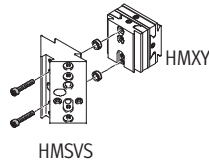
2) Packaging unit quantity: 10

# Angle adapters HMSVS

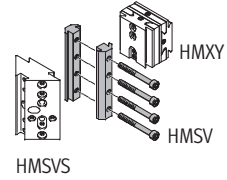
Technical data – Mounting on the basic component

## Mounting on adjusting unit HMXV

Material:  
 Adapter kit HMSV: Wrought aluminium alloy  
 Free of copper, PTFE and silicone



Direct mounting

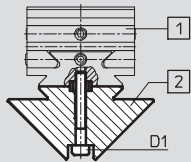


Dovetail mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

### Direct mounting

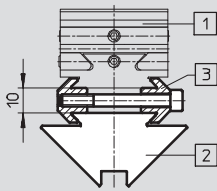


- 1 Adjusting unit HMXV
- 2 Angle adapter HMSVS

Basic component	Angle adapter	Screws <sup>1)</sup> D1
HMXV-1	HMSVS-1	2x M4x32

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

### Dovetail mounting



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

Basic component	Angle adapter	Part No.	Type
HMXV-1	HMSVS-1/2	177 647	HMSV-1
HMXV-3	HMSVS-1/2/3	177 649	HMSV-3

# Angle adapters HMSVS

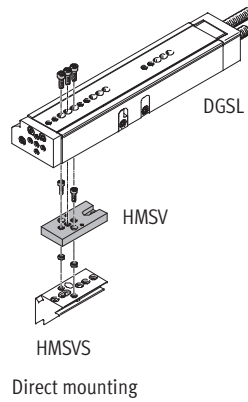
Technical data – Mounting on the attachment component

## Mounting on mini slide DGSL

Material:

Adapter kit HMSV: Wrought aluminium alloy

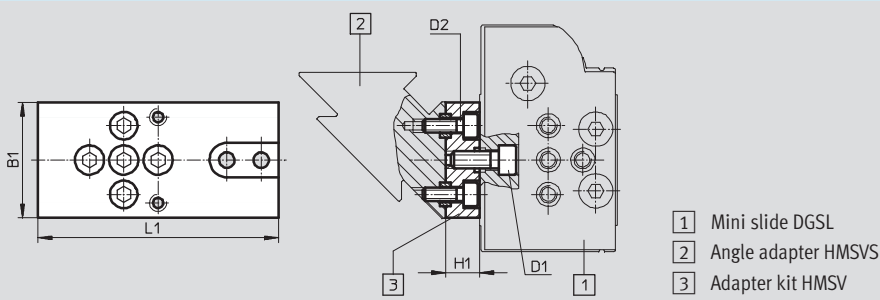
Free of copper, PTFE and silicone



## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

Direct mounting



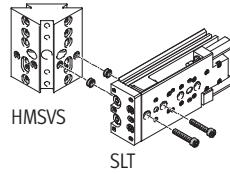
Attachment component	Angle adapter	B1	D1	D2	H1	L1	Part No.	Type
DGSL-4/6	HMSVS-1	33.6	M3	M5	10	87	548 787	HMSV-57
DGSL-8/10		33.6	M4	M5	10	87		
DGSL-12/16		33.6	M5	M5	10	70	548 782	HMSV-52
DGSL-20/25	HMSVS-2	40	M6	M5	10	100	548 929	HMSV-60

# Angle adapters HMSVS

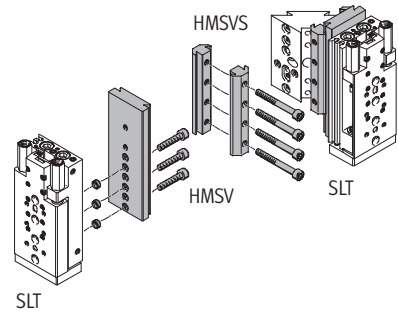
Technical data – Mounting on the attachment component

## Mounting on mini slide SLT

Material:  
 Adapter kit HMSV: Wrought aluminium alloy  
 Free of copper, PTFE and silicone



Direct mounting

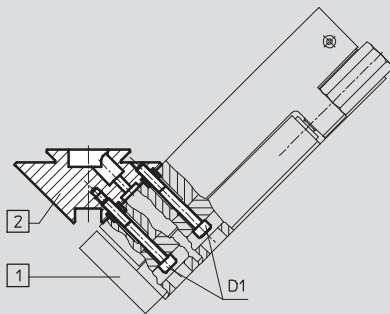


Dovetail mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

### Direct mounting

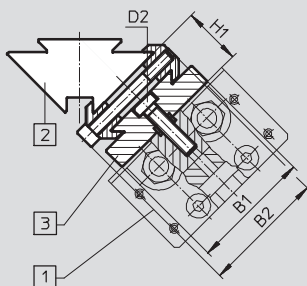


- 1 Mini slide SLT
- 2 Angle adapter HMSVS

Attachment component	Angle adapter	Screws <sup>1)</sup> D1	Part No.	Type
SLT-10	HMSVS-1	2x M4x30	<b>186 717</b>	<b>ZBH-7<sup>2)</sup></b>

1) The screws listed are not included with the angle adapter  
 2) Packaging unit quantity: 10

### Dovetail mounting



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

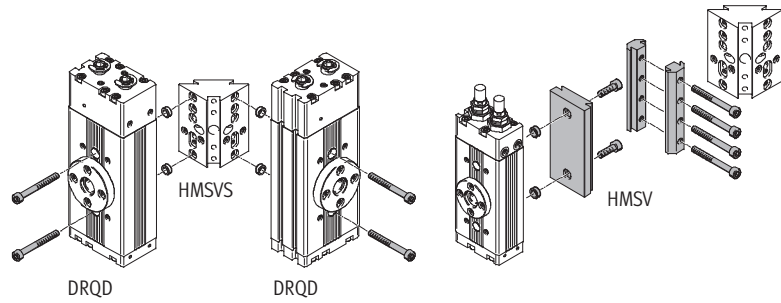
Attachment component	Angle adapter	B1	B2	H1	Screws D2	Part No.	Type
SLT-6	HMSVS-1/2/3	40	51	22	M3x20	<b>178 329</b>	<b>HMSV-34</b>
SLT-10	HMSVS-1/2/3	40	51	22	M4x30	<b>178 330</b>	<b>HMSV-35</b>
SLT-16	HMSVS-1/2/3	50	51	24	M6x25	<b>178 331</b>	<b>HMSV-36</b>
SLT-20	HMSVS-1	80	51	26	M8x25	<b>178 332</b>	<b>HMSV-37</b>
SLT-20/25	HMSVS-2/3	80	51	26	M8x25		

# Angle adapters HMSVS

Technical data – Mounting on the attachment component

## Mounting on semi-rotary drive DRQD

Material:  
 Adapter kit HMSV:  
 Wrought aluminium alloy  
 Free of copper, PTFE and silicone



Direct mounting

Dovetail mounting

## Dimensions and ordering data

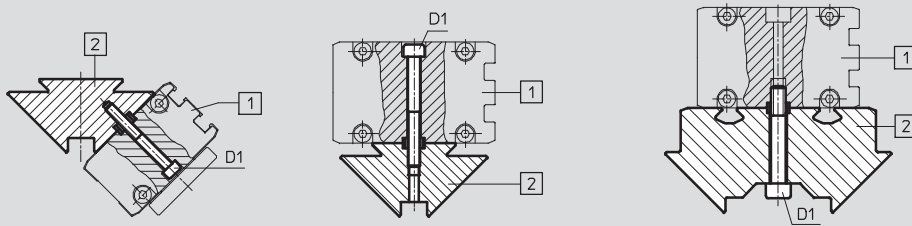
Download CAD data → [www.festo.com](http://www.festo.com)

Direct mounting

HMSVS-1

HMSVS-1

HMSVS-2/3



- 1 Semi-rotary drive DRQD
- 2 Angle adapter HMSVS

Attachment component	Angle adapter	Screws <sup>1)</sup> D1	Part No.	Type
DRQD-8	HMSVS-1/2/3	2x M4x20	–	
DRQD-12	HMSVS-1/2/3	2x M4x25	–	
DRQD-B-16	HMSVS-1/2	2x M4x35	–	
	HMSVS-3	–	<b>192 707</b>	<b>HAPG-38</b>
DRQD-B-20	HMSVS-1	2x M4x35	–	
	HMSVS-2	2x M4x40	–	
	HMSVS-3	–	<b>192 707</b>	<b>HAPG-38</b>
DRQD-B-25	HMSVS-1	2x M5x45	<b>150 927</b>	<b>ZBH-9<sup>1)</sup></b>
	HMSVS-2/3	2x M6x40	<b>150 927</b>	<b>ZBH-9<sup>1)</sup></b>
	HMSVS-3	2x M5x50	–	–
DRQD-B-32	HMSVS-2/3	2x M6x40	<b>150 927</b>	<b>ZBH-9<sup>1)</sup></b>
	HMSVS-3	2x M5x55	–	–
DRQD-40/50	HMSVS-3	2x M10x50	<b>191 409</b>	<b>ZBH-15<sup>1)</sup></b>

1) The screws listed are not included with the angle adapter  
 2) Packaging unit quantity: 10

# Angle adapters HMSVS

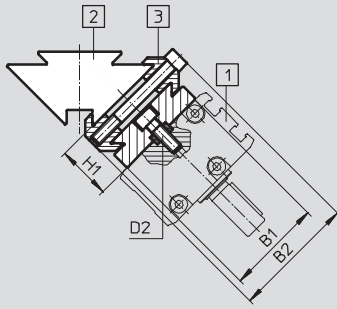
Technical data – Mounting on the attachment component

## Mounting on semi-rotary drive DRQD

### Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

Dovetail mounting



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

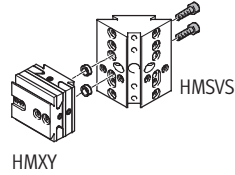
Attachment component	Angle adapter	B1	B2	H1	Screws D2	Part No.	Type
DRQD-B-16/20	HMSVS-1/2/3	40	51	22	M5x16	<b>177 656</b>	<b>HMSV-10</b>
DRQD-B-25	HMSVS-2/3	50	51	24	M5x10	<b>177 657</b>	<b>HMSV-11</b>
						<b>177 649</b>	<b>HMSV-3</b>
DRQD-B-32	HMSVS-2/3	50	51	24	M5x10	<b>177 663</b>	<b>HMSV-17</b>
						<b>177 653</b>	<b>HMSV-7</b>

# Angle adapters HMSVS

Technical data – Mounting on the attachment component

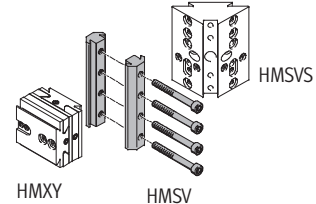
## Mounting on adjusting unit HMXY

Material:  
 Adapter kit HMSV: Wrought aluminium alloy  
 Free of copper, PTFE and silicone



HMXY

HMSVS



HMXY

HMSV

HMSVS

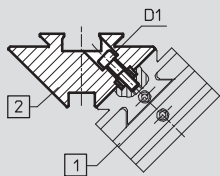
Direct mounting

Dovetail mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

### Direct mounting

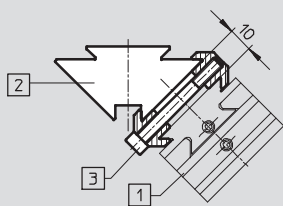


- 1 Adjusting unit HMXY
- 2 Angle adapter HMSVS

Attachment component	Angle adapter	Screws <sup>1)</sup>
HMXY-1	HMSVS-1	D1 2x M5x16

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

### Dovetail mounting



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

Attachment component	Angle adapter	Part No.	Type
HMXY-1	HMSVS-1/2/3	177 647	HMSV-1
HMXY-3	HMSVS-1/2/3	177 649	HMSV-3

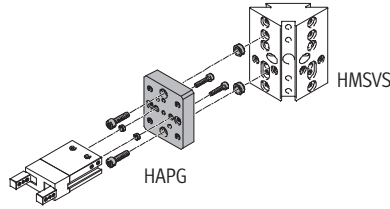


# Angle adapters HMSVS

Technical data – Mounting on the attachment component

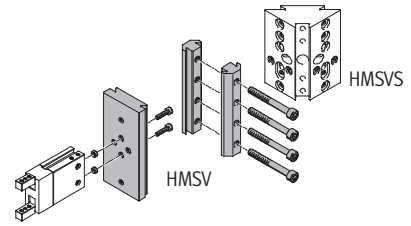
## Mounting on gripper HGD/HGP/HGR/HGW

Material:  
 Adapter kit HMSV:  
 Wrought aluminium alloy  
 Free of copper, PTFE and silicone



HGD  
 HGP  
 HGR  
 HGW

Direct mounting



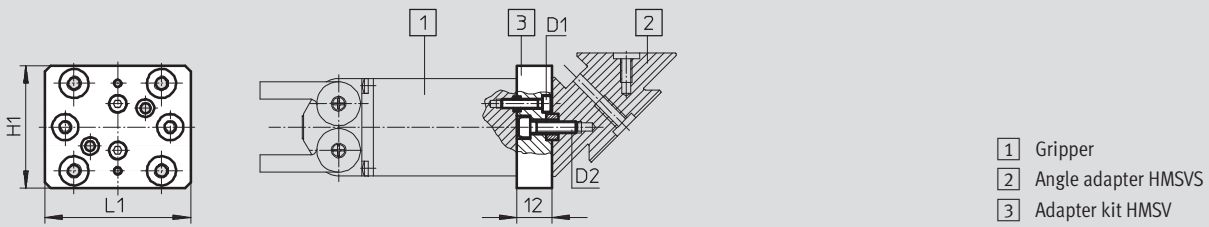
HGD  
 HGP  
 HGR  
 HGW

Dovetail mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

### Direct mounting



- 1 Gripper
- 2 Angle adapter HMSVS
- 3 Adapter kit HMSV

Attachment component	Angle adapter	H1	L1	Screws D1	Screws D2	Part No.	Type
HGP-6, HGR-10, HGW-10	HMSVS-1/2/3	42	50	M3x14	M4x16	192 706	HAPG-37-S1
HGP-10, HGR-16, HGW-16		42	50	M3x14	M4x16	192 705	HAPG-36-S1
HGD-16		42	50	M3x20	M4x16	193 921	HAPG-36-S3
HGP-16		42	50	M4x14	M4x16	193 922	HAPG-37-S4
HGR-25, HGW-25		42	50	M4x14	M4x16	193 922	HAPG-37-S4 <sup>1)</sup>

1) Only mountable in one gripping direction

# Angle adapters HMSVS

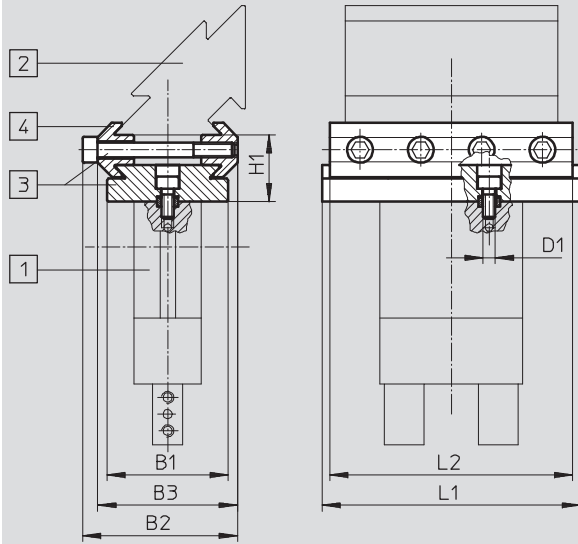
Technical data – Mounting on the attachment component

## Mounting on gripper HGD/HGP/HGR/HGW

### Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

#### Dovetail mounting



- 1 Gripper
- 2 Angle adapter HMSVS
- 3 Adapter kit HMSV
- 4 Clamping device

Attachment component	Angle adapter	B1	B2	B3	D1	L1	L2	H1	Part No.	Type
HGP-10, HGR-16, HGW-16	HMSVS-1/2/3	40	51	46	M3	85	80	22	177 767	HMSV-27
HGP-16/20, HGR-25, HGW-25	HMSVS-1/2/3	40	51	46	M4	85	80	24	177 768	HMSV-28
HGP-25, HGR-32, HGW-32	HMSVS-1/2/3	50	51	46	M6	100	100	24	177 769	HMSV-29
HGD-32	HMSVS-1/2/3	60	51	46	M8	110	100	28	178 212	HMSV-32
HGP-35, HGR-40, HGW-40	HMSVS-2/3	50	51	46	M3	85	100	22	177 770	HMSV-30
HGD-50	HMSVS-3	70	51	46	M5	110	100	24	178 213	HMSV-33

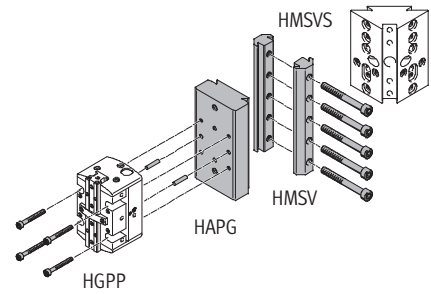
# Angle adapters HMSVS

Technical data – Mounting on the attachment component



## Mounting on parallel gripper HGPP

Material:  
 Adapter kit HMSV, HAPG:  
 Wrought aluminium alloy  
 Free of copper, PTFE and silicone

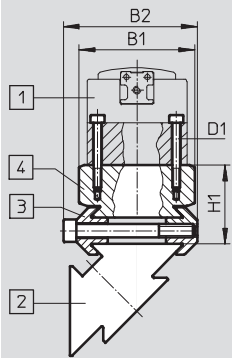


Dovetail mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

Dovetail mounting



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

Attachment component	Angle adapter	B1	B2	H1	Screws D1	Part No.	Type	Part No.	Type
HGPP-12	HMSVS-1/2/3	44	51	30	M5x30	177 649	HMSV-3	191 262	HAPG-44
HGPP-16	HMSVS-1/2/3	44	51	30	M5x30	177 649	HMSV-3	191 263	HAPG-45
HGPP-20	HMSVS-1/2/3	50	51	22	M5x30	177 649	HMSV-3	191 265	HAPG-47
HGPP-25	HMSVS-1	60	51	28	M5x40	177 649	HMSV-3	529 019	HAPG-59
HGPP-32	HMSVS-2/3	60	51	28	M5x50	177 649	HMSV-3	529 020	HAPG-61

# Angle adapters HMSVS

Technical data – Mounting on the attachment component



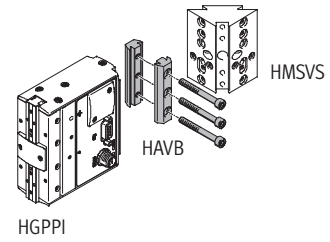
## Mounting on parallel gripper HGPP1

Material:

Adapter kit HAVB:

Wrought aluminium alloy

Free of copper, PTFE and silicone

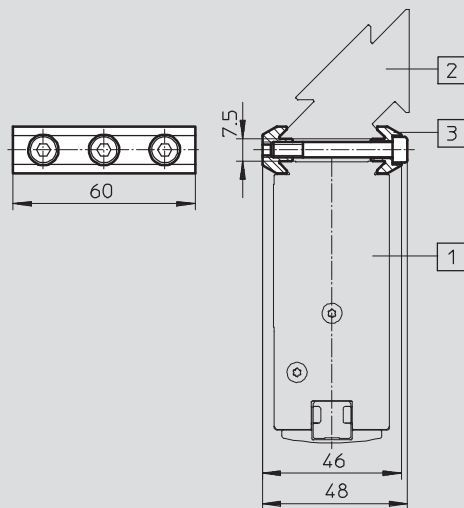


Dovetail mounting

## Dimensions and ordering data

Download CAD data → [www.festo.com](http://www.festo.com)

Dovetail mounting



- 1 Parallel gripper HGPP1
- 2 Angle adapter HMSVS
- 3 Adapter kit HAVB-3

Attachment component	Angle adapter	Part No.	Type
HGPP1-12	HMSVS-1/2/3	163 239	HAVB-3