



- Versatile precision interfaces
- Wide choice of mounting options

Angle adapters HMSVS

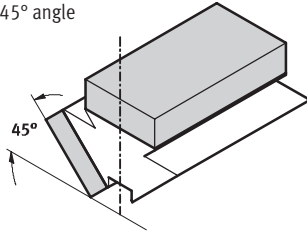
Key features

FESTO

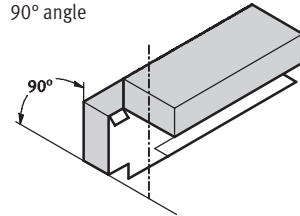
Key features at a glance

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 → 5 / 3.4-6

Linear modules
HMP/HMPL



Mini slides
DGSL



Mini slides
SLT

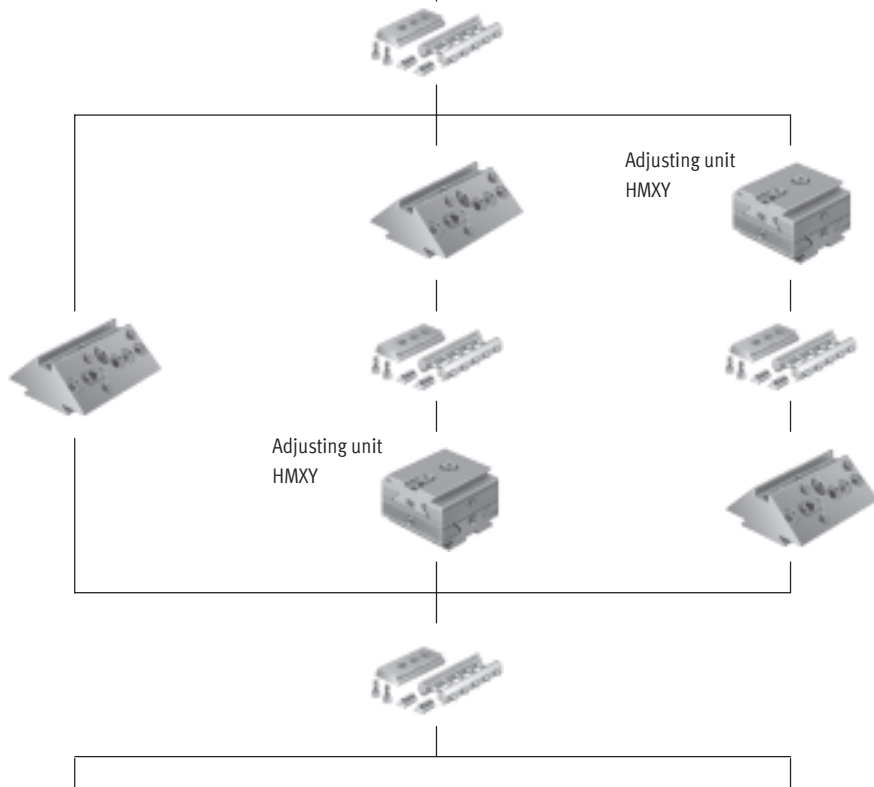


Semi-rotary drives
DRQD



Adapter kits

- Direct mounting
- Dovetail mounting



Angle adapter HMSVS

- Interface between basic component and attachment component

Adjusting unit HMX

→ 5 / 3.4-22

Adapter kits

- Direct mounting
- Dovetail mounting

Mounting the attachment component → 5 / 3.4-12



Mini slides
DGSL



Mini slides
SLT



Semi-rotary drives
DRQD



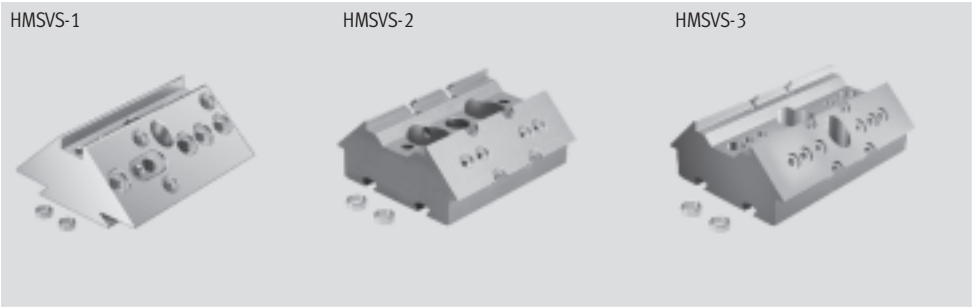
Grippers
HGD, HGP, HGR, HGW
HGPP, HGPPI
Parallel grippers, micro
HGPM, HGWM

Angle adapters HMSVS

Technical data



Angle adapter

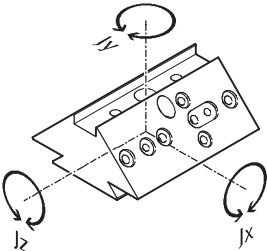


General technical data				
		HMSVS-1	HMSVS-2	HMSVS-3
Mass moment of inertia → Fig. 1	J_x [$\text{kgm}^2 \times 10^{-4}$]	0.774	0.630	1.056
	J_y [$\text{kgm}^2 \times 10^{-4}$]	0.968	0.957	1.427
	J_z [$\text{kgm}^2 \times 10^{-4}$]	0.342	0.457	0.520
Weights	[g]	156	647	769
Ambient temperature	[°C]	-20 ... +60		
Corrosion resistance class CRC ¹⁾		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

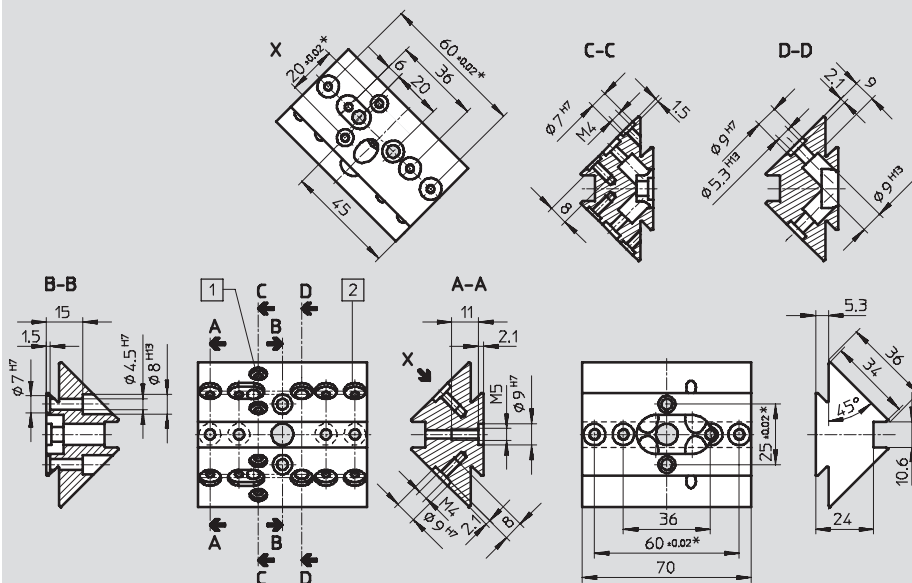
Technical data

FESTO

Dimensions

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

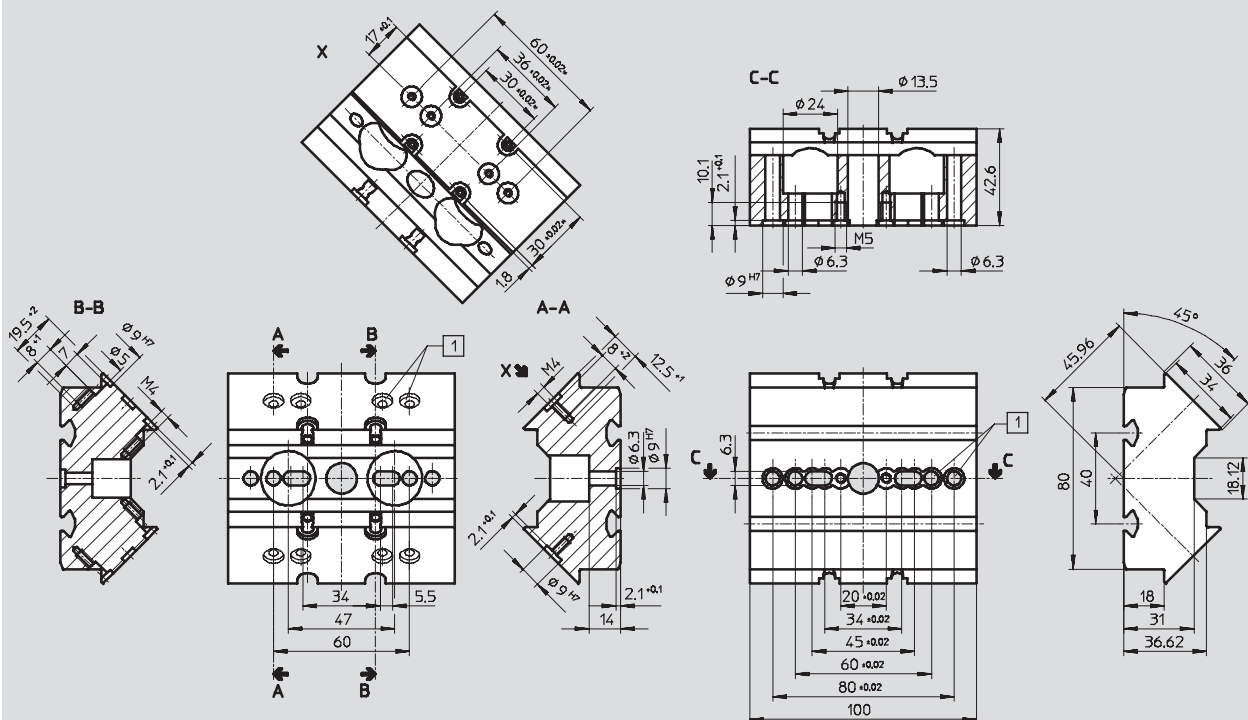
HMSVS-1



- 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

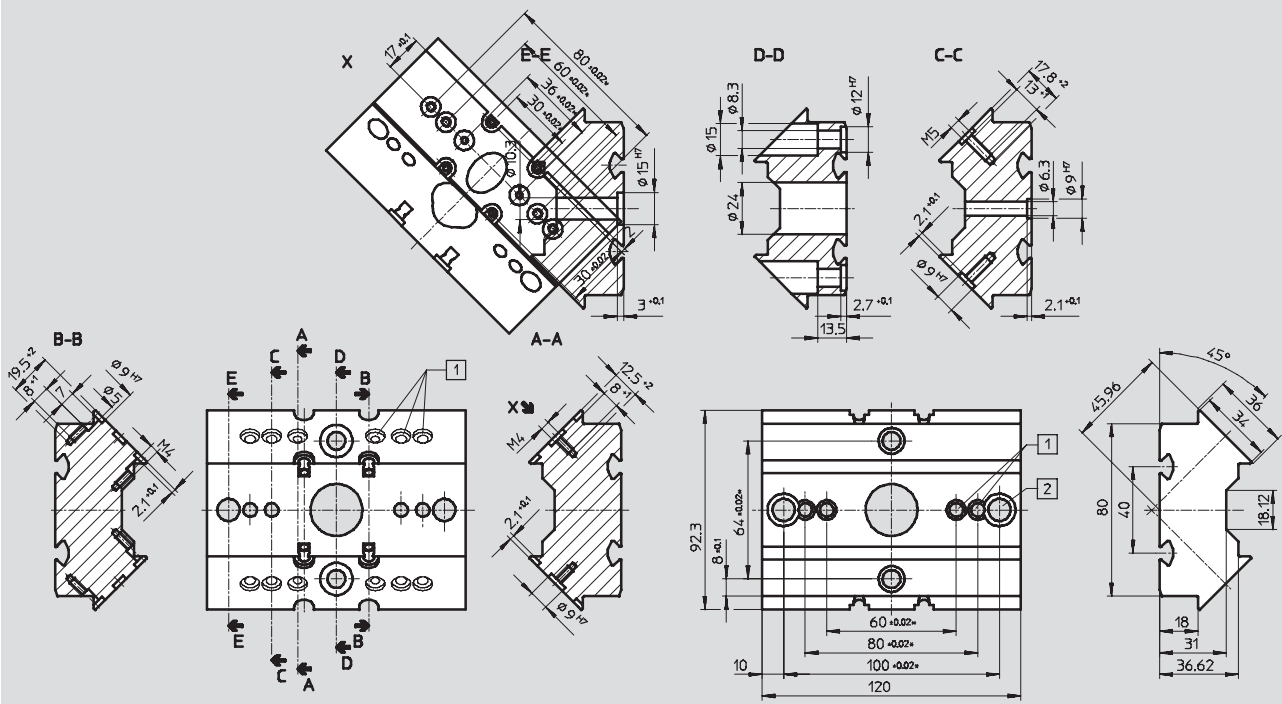
Technical data

FESTO

Dimensions

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

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

System components
Special function components

3.4

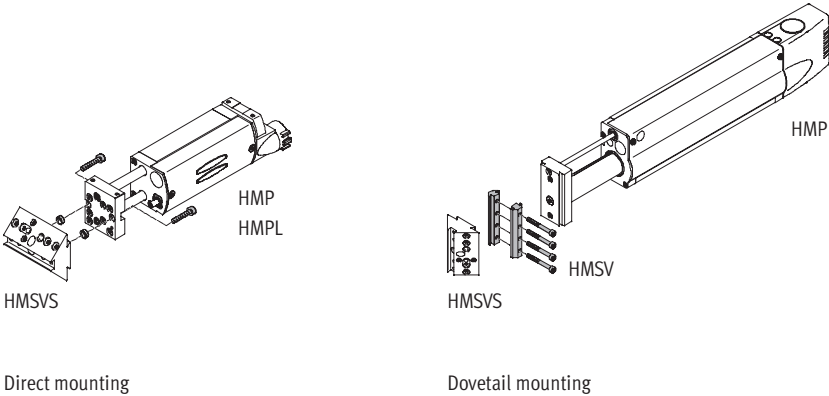
Angle adapters HMSVS

Technical data – Mounting on the basic component



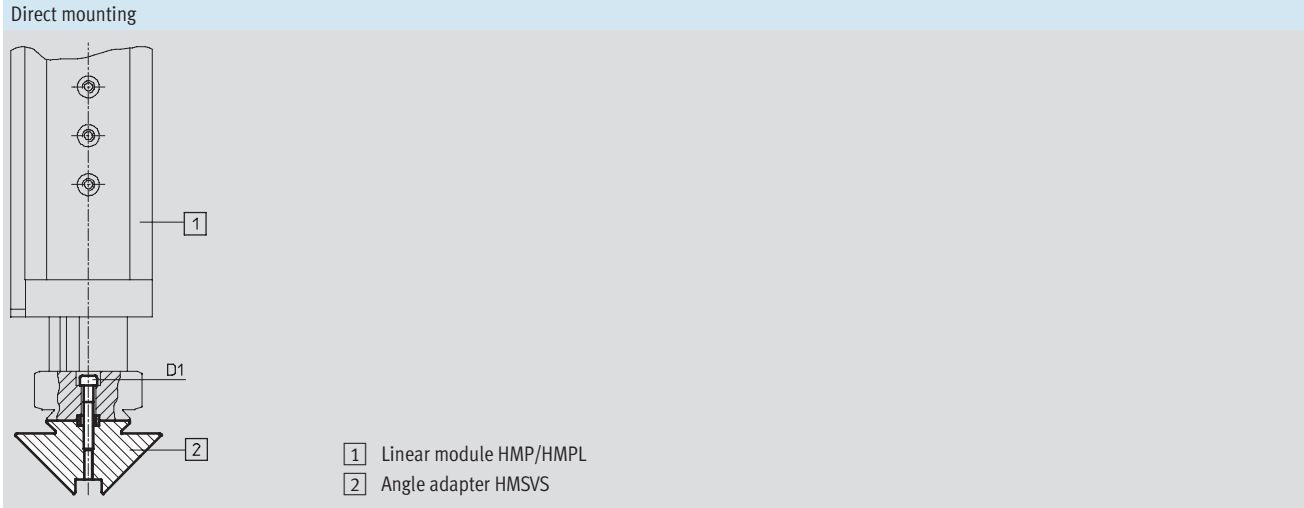
Mounting on linear module HMP/HMPL

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



Dimensions and ordering data

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



Basic component	Angle adapter	Screws ¹⁾ 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	HMSVS-3	2x M6x45
HMPL-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

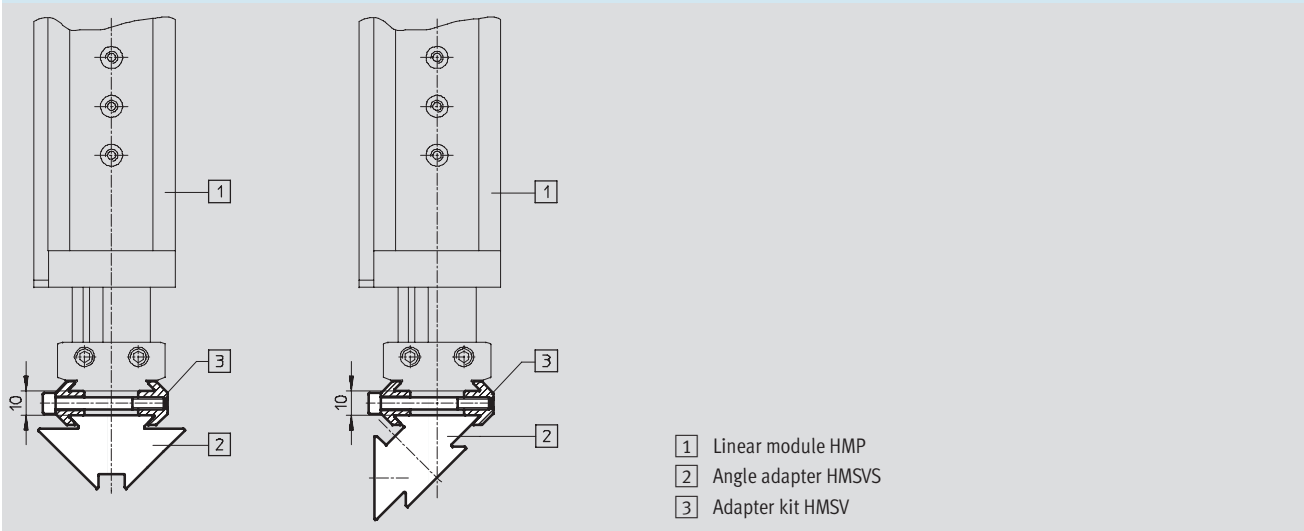


Mounting on linear module HMP/HMPL

Dimensions and ordering data

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

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		

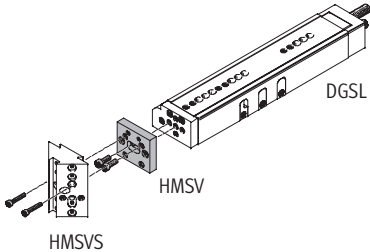
Angle adapters HMSVS

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/en/engineering

Direct mounting

1

 Mini slide DGSL

2

 Angle adapter HMSVS

3

 Adapter kit HMSV

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

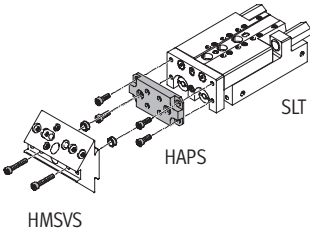
Angle adapters HMSVS

Technical data – Mounting on the basic component



Mounting on mini slide SLT

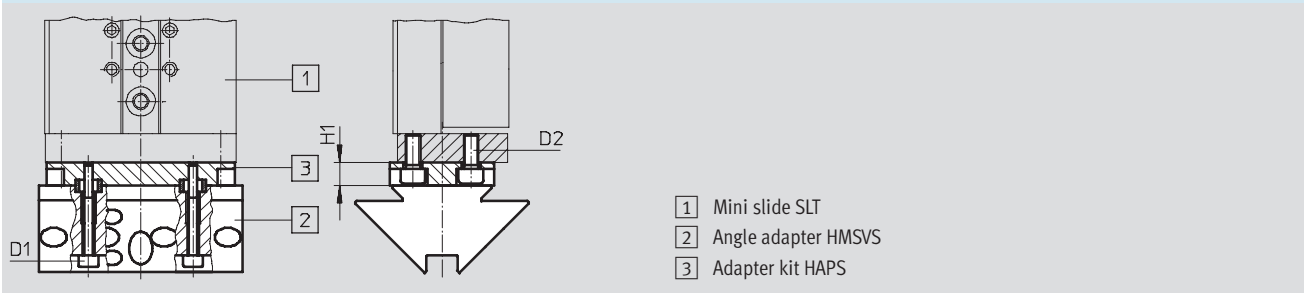
Material:
 Adapter kit HAPS:
 Wrought aluminium alloy
 Free of copper, PTFE and silicone



Direct mounting

Dimensions and ordering data

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



Basic component	Angle adapter	H1	Screws ¹⁾ 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 ²⁾
SLT-25		12	2x M4x40	M6x16	178 451	HAPS-5 ²⁾

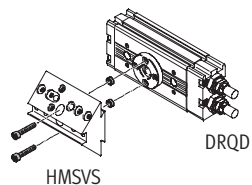
1) The screws listed are not included with the angle adapter
 2) Additional requirements: 2 washers to DIN 125 A 4.3

Angle adapters HMSVS

Technical data – Mounting on the basic component



Mounting on semi-rotary drive DRQD

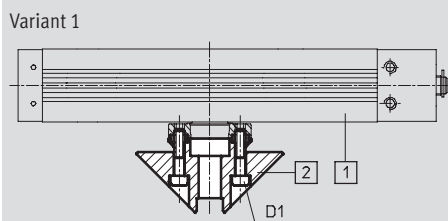


Direct mounting

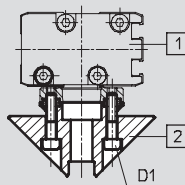
Dimensions and ordering data

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

Direct mounting



Variant 2



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

Basic component	Angle adapter	Screws ¹⁾ D1	Part No.	Type
DRQD-16/20	HMSVS-1	2x M4x20	186 717	ZBH-7²⁾
DRQD-25/32	HMSVS-2	2x M6x40	150 927	ZBH-9²⁾
DRQD-40/50	HMSVS-3	2x M8x25	189 653	ZBH-12²⁾

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

- 1) The screws listed are not included.
- 2) Packaging unit quantity: 10

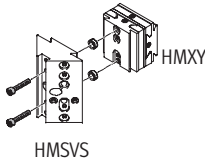
Angle adapters HMSVS

Technical data – Mounting on the basic component

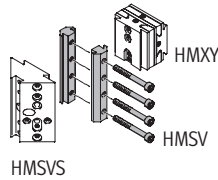


Mounting on adjusting unit HMXV

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/en/engineering

Direct mounting

1

 Adjusting unit HMXV

2

 Angle adapter HMSVS

Basic component	Angle adapter	Screws ¹⁾ 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

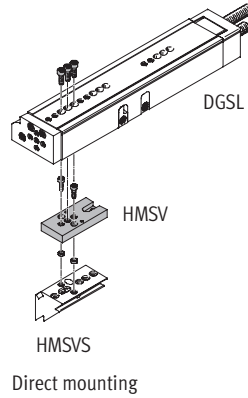
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Mounting on mini slide DGSL

Material:

Adapter kit HMSV: Wrought aluminium alloy

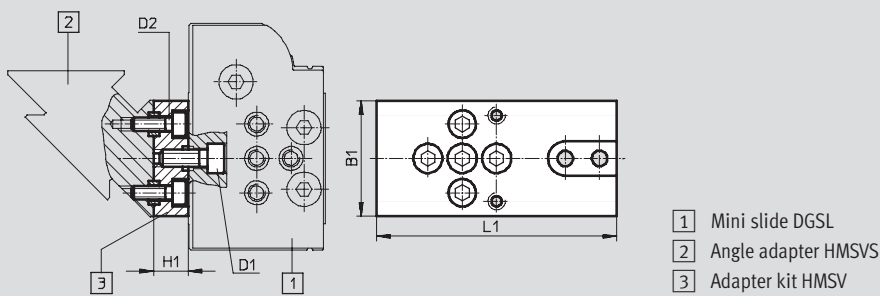
Free of copper, PTFE and silicone



Dimensions and ordering data

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

Direct mounting



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

Angle adapters HMSVS

Technical data – Mounting on the attachment component

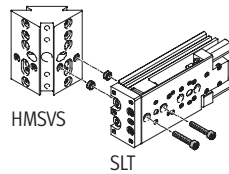
FESTO

Mounting on mini slide SLT

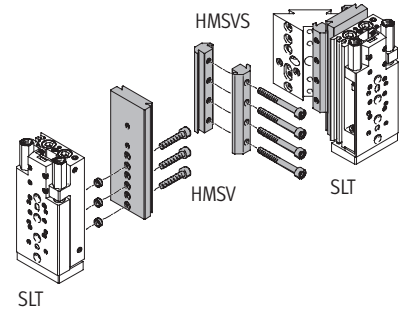
Material:

Adapter kit HMSV: Wrought aluminium alloy

Free of copper, PTFE and silicone



Direct mounting

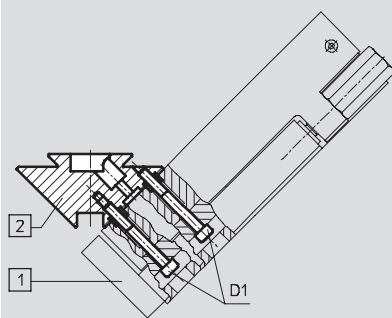


Dovetail mounting

Dimensions and ordering data

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

Direct mounting



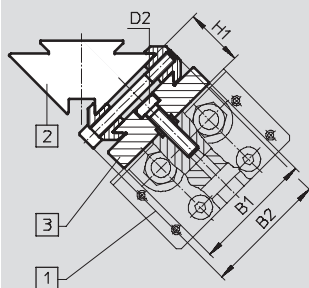
- 1 Mini slide SLT
- 2 Angle adapter HMSVS

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

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	178 329	HMSV-34
SLT-10	HMSVS-1/2/3	40	51	22	M4x30	178 330	HMSV-35
SLT-16	HMSVS-1/2/3	50	51	24	M6x25	178 331	HMSV-36
SLT-20	HMSVS-1	80	51	26	M8x25	178 332	HMSV-37
SLT-20/25	HMSVS-2/3	80	51	26	M8x25		

Angle adapters HMSVS

Technical data – Mounting on the attachment component

FESTO

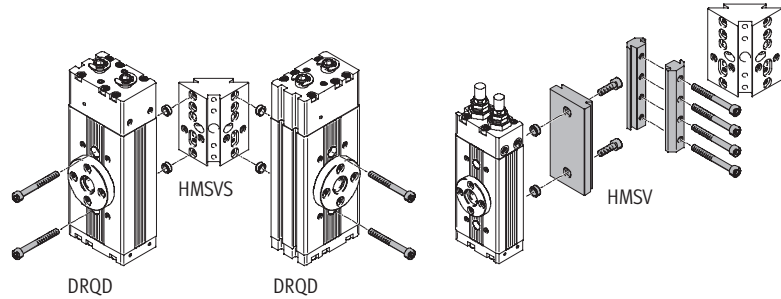
Mounting on semi-rotary drive DRQD

Material:

Adapter kit HMSV:

Wrought aluminium alloy

Free of copper, PTFE and silicone



Direct mounting

Dovetail mounting

Dimensions and ordering data

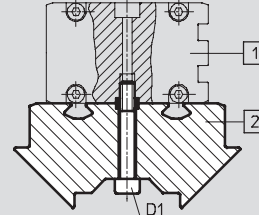
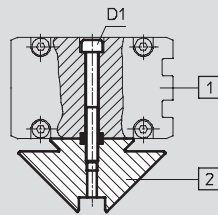
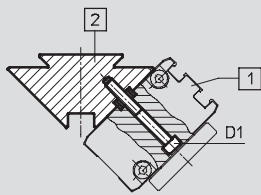
Download CAD data → www.festo.com/en/engineering

Direct mounting

HMSVS-1

HMSVS-1

HMSVS-2/3



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

Attachment component	Angle adapter	Screws ¹⁾ D1	Part No.	Type
DRQD-6	HMSVS-1/2/3	–	193 920	HAPG-36-S2
DRQD-8	HMSVS-1/2/3	2x M4x20	–	–
DRQD-12	HMSVS-1/2/3	2x M4x25	–	–
DRQD-16	HMSVS-1/2	2x M4x35	–	–
	HMSVS-3	–	192 707	HAPG-38
DRQD-20	HMSVS-1	2x M4x35	–	–
	HMSVS-2	2x M4x40	–	–
	HMSVS-3	–	192 707	HAPG-38
DRQD-25	HMSVS-1	2x M5x45	150 927	ZBH-9 ¹⁾
	HMSVS-2/3	2x M6x40	150 927	ZBH-9 ¹⁾
	HMSVS-3	2x M5x50	–	–
DRQD-32	HMSVS-2/3	2x M6x40	150 927	ZBH-9 ¹⁾
	HMSVS-3	2x M5x55	–	–
DRQD-40/50	HMSVS-3	2x M10x50	191 409	ZBH-15 ¹⁾

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/en/engineering

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-16/20	HMSVS-1/2/3	40	51	22	M5x16	177 656	HMSV-10
DRQD-25	HMSVS-2/3	50	51	24	M5x10	177 660	HMSV-14
DRQD-32	HMSVS-2/3	50	51	24	M5x10	177 665	HMSV-19

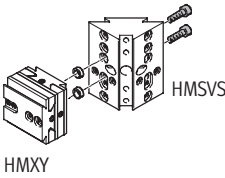
Angle adapters HMSVS

Technical data – Mounting on the attachment component

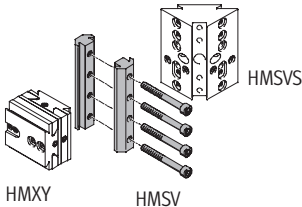


Mounting on adjusting unit HMXV

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/en/engineering

Direct mounting

1

 Adjusting unit HMXV

2

 Angle adapter HMSVS

Attachment component	Angle adapter	Screws ¹⁾ D1
HMXV-1	HMSVS-1	2x M5x16

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

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

Angle adapters HMSVS

Technical data – Mounting on the attachment component

FESTO

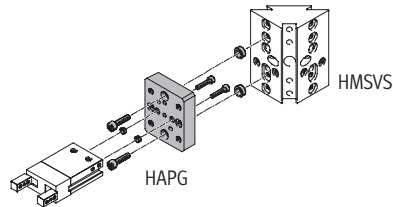
Mounting on gripper HGD/HGP/HGR/HGW

Material:

Adapter kit HMSV:

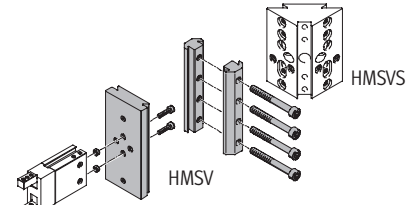
Wrought aluminium alloy

Free of copper, PTFE and silicone



HGD
HGP
HGR
HGW

Direct mounting



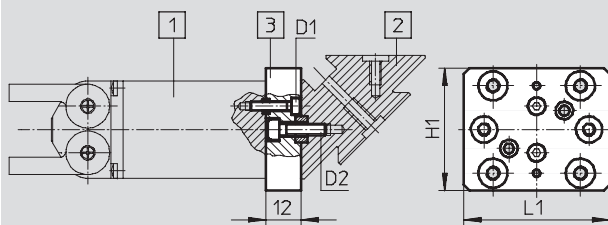
HGD
HGP
HGR
HGW

Dovetail mounting

Dimensions and ordering data

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

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 ¹⁾

1) Only mountable in one gripping direction

Angle adapters HMSVS

Technical data – Mounting on the attachment component

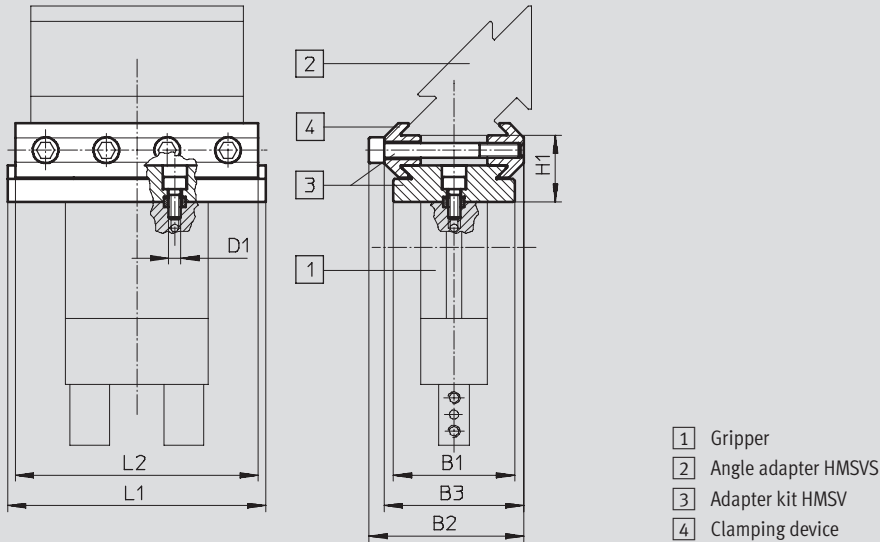
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Mounting on gripper HGD/HGP/HGR/HGW

Dimensions and ordering data

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

Dovetail mounting



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
HDG-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
HDG-50	HMSVS-3	70	51	46	M5	110	100	24	178 213	HMSV-33

Angle adapters HMSVS

Technical data – Mounting on the attachment component

FESTO

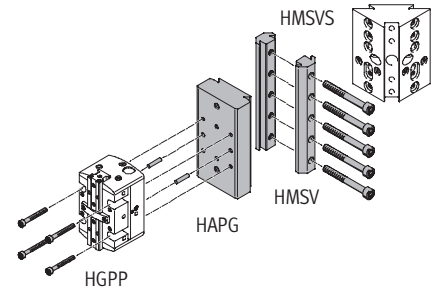
Mounting on parallel gripper HGPP

Material:

Adapter kit HMSV, HAPG:

Wrought aluminium alloy

Free of copper, PTFE and silicone

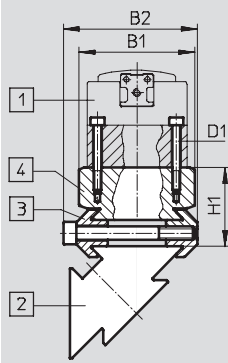


Dovetail mounting

Dimensions and ordering data

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

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

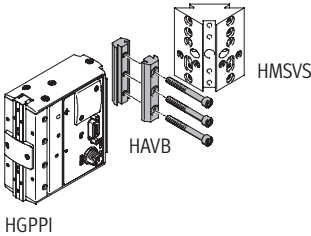
Angle adapters HMSVS

Technical data – Mounting on the attachment component



Mounting on parallel gripper HGPPI

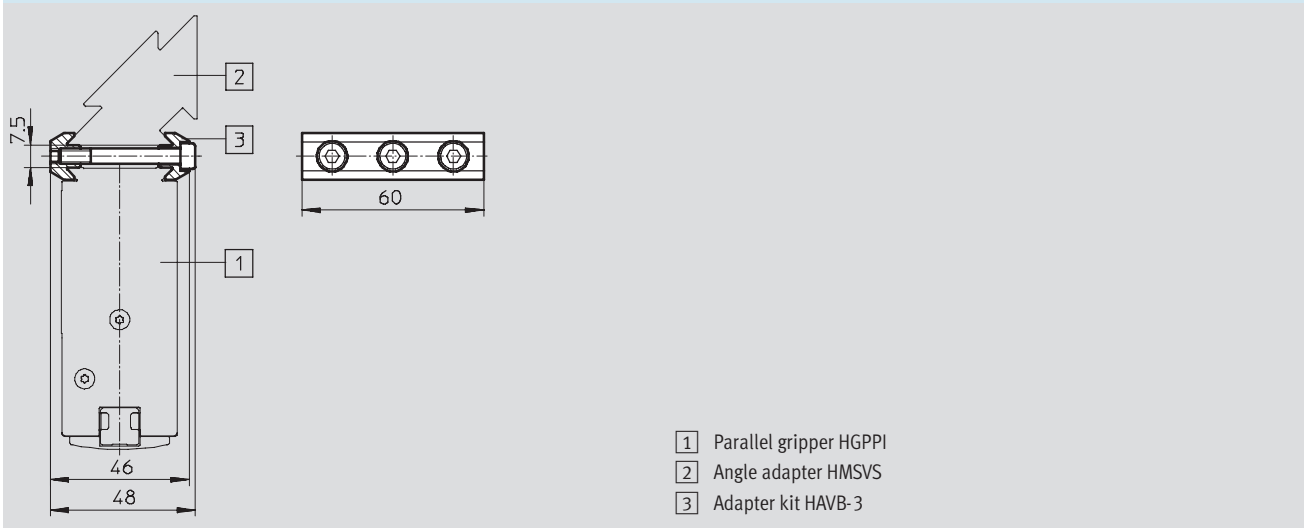
Material:
Adapter kit HAVB:
Wrought aluminium alloy
Free of copper, PTFE and silicone



Dovetail mounting

Dimensions and ordering data

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



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