



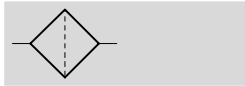
- Vacuum filters VAF
- Filters ESF
- Angle compensators ESWA
- Height compensators VAL
- Elbows LJK
- Vacuum gauges VAM
- Silencers UO
- Valves for vacuum operation

Accessories for vacuum technology

Technical data

Vacuum filters VAF

Function



- - Temperature range
0 ... +40 °C

- - Operating pressure
-0.9 ... 7 bar

This vacuum filter is used to remove particles in the direction of suction. It is used as an inline filter in the tubing line.



General technical data		PK-3	PK-4	PK-6
Size				
Design		Filter element in the translucent status		
Operating medium		Atmospheric air		
Mounting position		Any		
Type of mounting		In-line installation		
Vacuum port		PK-3 with locknut	PK-4 with locknut	PK-6 with locknut
Grade of filtration	[μ m]	50		
Vacuum filter flow	[l/min]	-	70	210
Nominal size	[mm]	2	3	4.6
Operating pressure	[bar]	-0.9 ... 7		

Ambient conditions		PK-3	PK-4	PK-6
Size				
Ambient temperature	[°C]	0 ... +40		
Material		Plastic		

Weights [g]		PK-3	PK-4	PK-6
Size				
VAF- ...		4	6	9

Dimensions

- 1 Quick connectors for plastic tubing
- 2 Flow direction indicated with arrow
- 3 Degree of contamination visible through the transparent housing

Type	D1	D2	L1	\varnothing 1
VAF-PK-3	16	12	50.8	8
VAF-PK-4	16	12	57	12
VAF-PK-6	24	19	63.3	14

Accessories for vacuum technology

FESTO


Technical data


Ordering data		
Pneumatic connection	Part No.	Type
PK-3	535 883	VAF-PK-3
PK-4	15 889	VAF-PK-4
PK-6	160 239	VAF-PK-6


Accessories for vacuum technology

Technical data

Filter ESF

-  - Temperature range
0 ... +60 °C

-  - Operating pressure
-0.95 ... 4 bar

-  - Note
For suction gripper ESG, between
suction cup and suction cup holder
→ NO TAG

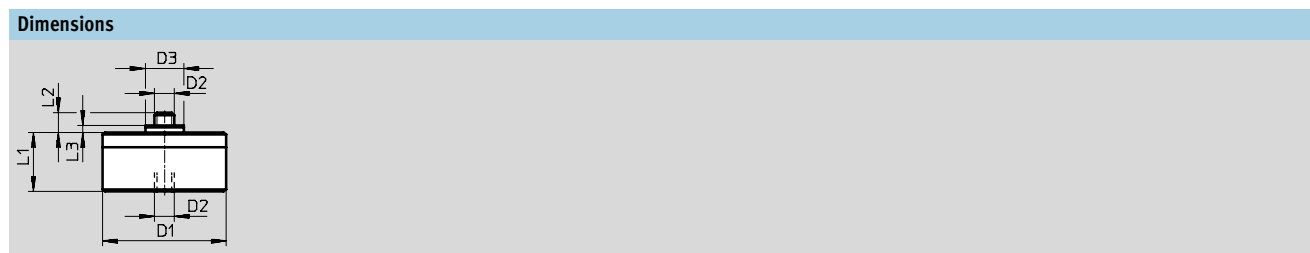


General technical data			
Holder size	3	4A	4B
Mounting position	Any		
Type of mounting	In-line installation with threaded connection		
Grade of filtration [µm]	10		
Flow rate [l/min]	100	260	270
Operating pressure [bar]	-0.95 ... 4		

Ambient conditions			
Holder size	3	4A	4B
Housing	Aluminium, nickel-plated brass		
Seals	Nitrile rubber		
Note on material	Free of copper, PTFE and silicone		
Ambient temperature [°C]	0 ... +60		
Corrosion resistance CRC ¹⁾	1		

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

Weights [g]			
Holder size	3	4A	4B
ESF- ...	9	19	57




Type	D1	D2	D3	L1	L2	L3
ESF-3	25	M4x0.7	7.8	10.5	4.5	3.1
ESF-4A	25	M6x1	8.8	10.5	5.5	3.9
ESF-4B	40	M6x1	8.8	14	5.5	3.9


Ordering data		
Holder size	Part No.	Type
3	191 202	ESF-3
4A	191 203	ESF-4A
4B	191 204	ESF-4B

Accessories for vacuum technology

Technical data

Angle compensator ESWA

 Temperature range
 0 ... +60 °C

 Note
 For suction gripper ESG, between
 suction cup and suction cup holder
 → NO TAG



General technical data	
Holder size	3 4 5
Design	Ball joint with ± 15° swivel angle
Operating medium	Atmospheric air
Mounting position	Any
Type of mounting	With threaded connection

Ambient conditions	
Holder size	3 4 5
Housing	Aluminium
Seals	Nitrile rubber
Note on material	Free of copper, PTFE and silicone
Ambient temperature [°C]	0 ... +60
Corrosion resistance CRC ¹⁾	1

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

Weights [g]	
Holder size	3 4 5
ESWA- ...	9 19 57

Dimensions


Type	D1 Ø	D2	L1	L2
ESWA-3	15	M4x0.7	23	4
ESWA-4	20	M6x1	28.5	6
ESWA-5	28	M10x1.5	40.5	10


Ordering data		
Holder size	Part No.	Type
3	191 205	ESWA-3
4	191 206	ESWA-4
5	191 207	ESWA-5

Accessories for vacuum technology

Technical data

Height compensator VAL

-  - Temperature range
-10 ... +60 °C

-  - Note
For suction cup VAS/VASB
→ NO TAG



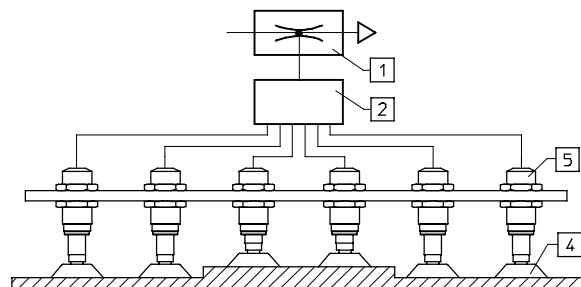
General technical data			
Size	5	10	20
Design	Vacuum port on top		
Operating medium	Atmospheric air		
Mounting position	Any		
Type of mounting	Mounting on the male thread or via the female air connection thread of the housing		
Vacuum port	M5	G1/8	G1/4
Operating pressure [bar]	-0.95 ... 8		

Ambient conditions			
Size	5	10	20
Housing	Aluminium		
Seals	Nitrile rubber		
Note on material	Free of copper, PTFE and silicone		
Ambient temperature [°C]	-10 ... +60		

4.1

Gentle handling of the workpieces by compensating for any excess stroke of the handling device or tolerance differences in the workpiece thickness.

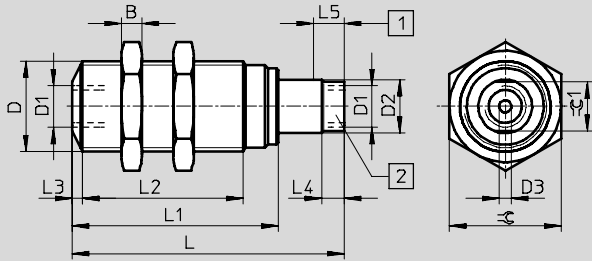
- 1 Vacuum generator
- 2 Distributor
- 4 Suction cup
- 5 Height compensator



Accessories for vacuum technology

Technical data

Dimensions



- 1 Spring travel for height compensator
- 2 Suction cup connector

Type	B	D	D1	D2 Ø	D3 Ø	L	L1	L2	L3	L4	L5	\varnothing	\varnothing 1
VAL-M5-5	5	M16x1	M5	8	2	46	35	25.5	2	4.5	5	19	7
VAL-1/8-10	6	M22x1.5	G1/8	13	3	66	50	39	2.5	5.5	10	27	12
VAL-1/4-20	8	M26x1.5	G1/4	17	4	100	73	60	2.5	6.5	20	32	16

Ordering data

Height compensator [mm]	Vacuum port	Part No.	Type
5	M5	151 209	VAL-M5-5 ¹⁾
10	G1/8	151 210	VAL-1/8-10 ¹⁾
20	G1/4	151 211	VAL-1/4-20 ¹⁾


1) Free of copper, PTFE and silicone


Accessories for vacuum technology


FESTO

Technical data

Elbow fitting LJK

-  - Temperature range
-10 ... +60 °C

-  - Operating pressure
-0.95 ... 8 bar

-  - Note
For suction cup VAS/VASB
→ NO TAG

- Redirection of air connection
- Swivel joint rotatable 360°
- For decoupling from mounting thread



General technical data			
Size	M5	G1/8	G1/4
Design	Swivel fitting with female thread		
Operating medium	Atmospheric air		
Mounting position	Any		
Type of mounting	Mounting via the lateral connection nection on the male thread of the hollow bolt		
Vacuum port	M5	G1/8	G1/4
Operating pressure [bar]	-0.95 ... 8		

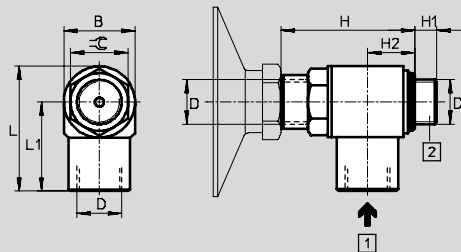
Ambient conditions			
Size	M5	G1/8	G1/4
Swivel fitting	Die-cast zinc		
Seals	Nitrile rubber and steel/nitrile rubber		
Note on material	Free of copper, PTFE and silicone		
Ambient temperature [°C]	-10 ... +60		
Corrosion resistance CRC ¹⁾	2		

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

Vacuum accessories

4.1

Dimensions



- 1 Air connection (vacuum)
- 2 Mounting thread

Vacuum port	B	D	H	H1	H2	L	L1	≡
M5	10	M5	20.3	3.8	7.5	17.5	12.5	8
G1/8	16	G1/8	30	5	10.6	28	20	13
G1/4	20	G1/4	39	8	13.5	36	26.5	17

Ordering data		
Vacuum port	Part No.	Type
M5	151 783	LJK-M5-I/I
G1/8	151 784	LJK-1/8-I/I
G1/4	151 785	LJK-1/4-I/I

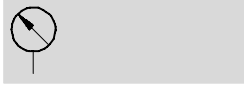
Accessories for vacuum technology

Technical data

Vacuum gauge VAM, DIN EN 837-1

- Analogue display via Bourdon tube
- Vacuum gauges can be loaded up to $\frac{3}{4}$ of their full scale value under static load and up to $\frac{2}{3}$ under intermittent load conditions.

Function



Temperature range
-10 ... +60 °C

Pressure
-1 ... +9 bar



General technical data			
Nominal tubing size, pressure gauge	40	63	
Type	VAM-40-V1/0	VAM-63-V1/0	VAM-63-V1/9
Pneumatic connection	R1/8	R1/4	
Operating pressure [bar]	-1 ... 0	-1 ... 0	-1 ... +9
Operating medium	Dried air, lubricated or unlubricated		
Design	Bourdon tube pressure gauge		
Based on standard	DIN EN 837-1		
Type of mounting	Can be screwed in Panel mounting		
Type of seal on threaded plug	No seal		
Mounting position	Any		
Connection position	Centre, rear side		
Ambient temperature [°C]	-10 ... +60		
Accuracy of measurement, class	2.5		
Factor, continuous load	0.75		
Factor, intermittent load	0.66		

Display			
Nominal tubing size, pressure gauge	40	63	
Type	VAM-40-V1/0	VAM-63-V1/0	VAM-63-V1/9
Scale	Double scale bar (outer) inHg/psi (inner)		
Indicating range [bar]	-1 ... 0	-1 ... 0	-1 ... +9
[inHg]	-30 ... 0	-30 ... 0	-30 ... 0
[psi]	-	-	0 ... +130

Product weights [g]		
Nominal tubing size, pressure gauge	40	63
VAM	63	83

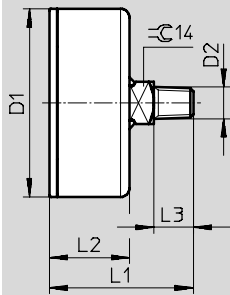
Materials	
Housing	Acrylic butadiene styrene
Window shield	Polystyrene
Threaded plug	Brass

Accessories for vacuum technology

FESTO

Technical data

Dimensions



Type	D1 Ø	D2	L1	L2	L3
VAM-40	39 ±0.5	R ¹ / ₈	46 ±1	26 ±0.5	12
VAM-63	62 ±0.5	R ¹ / ₄	47.5 ±1	26.5 ±0.5	13

Ordering data

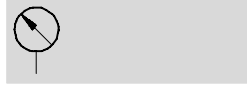
Nominal tubing size, pressure gauge	Pneumatic connection	Indicating range			Part No.	Type
		[bar]	[inHg]	[psi]		
40	R ¹ / ₈	-1 ... 0	-30 ... 0	-	537 810	VAM-40-V1/0-R ¹ / ₈ -EN
63	R ¹ / ₄	-1 ... 0	-30 ... 0	-	537 811	VAM-63-V1/0-R ¹ / ₄ -EN
		-1 ... 9	-30 ... 0	0 ... +130	537 814	VAM-63-V1/9-R ¹ / ₄ -EN


Accessories for vacuum technology


Technical data

Vacuum gauge VAM

Function



-  - Temperature range
-10 ... +60 °C

-  - Pressure
-1 ... +9 bar

- Analogue display via Bourdon tube
- Vacuum gauges can be loaded up to $\frac{3}{4}$ of their full scale value under static load and up to $\frac{2}{3}$ under intermittent load conditions.



General technical data		
Nominal tubing size, pressure gauge	40	63
Type	VAM-40-V1/0	VAM-63-V1/0
Pneumatic connection	G1/8	G1/4
Operating pressure [bar]	-1 ... 0	-1 ... 0
Operating medium	Compressed air, filtered, lubricated or unlubricated	
Design	Bourdon tube pressure gauge	
Mounting position	Upright	
Type of mounting	Can be screwed in	
Connection position	Centre, rear side	
Ambient temperature [°C]	-10 ... +60	
Corrosion resistance classification CRC ¹⁾	1	
Accuracy of measurement, class	1.6	

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

4.1

Display		
Nominal tubing size, pressure gauge	40	63
Type	VAM-40-V1/0	VAM-63-V1/0
Scale	Double scale	
	bar (outer)	
	psi (inner)	
Indicating range [bar]	-1 ... 0	-1 ... 0
[psi]	-14.5 ... 0	-14.5 ... 0

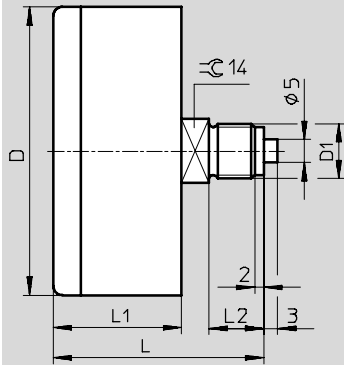
Product weights [g]		
Nominal tubing size, pressure gauge	40	63
VAM	110	130

Accessories for vacuum technology

FESTO

Technical data

Dimensions



Type	D	D1	L	L1	L2
VAM-40	40	G $\frac{1}{8}$	40.5	24.5	10
VAM-63	63	G $\frac{1}{4}$	46	28	12

Ordering data

Nominal tubing size, pressure gauge	Pneumatic connection	Indicating range		Part No.	Type
		[bar]	[psi]		
Free of copper, PTFE and silicone					
40	G $\frac{1}{8}$	-1 ... 0	-14.5 ... 0	183 521	VAM-40-V1/0- $\frac{1}{8}$ -CT
63	G $\frac{1}{4}$	-1 ... 0	-14.5 ... 0	183 522	VAM-63-V1/0- $\frac{1}{4}$ -CT

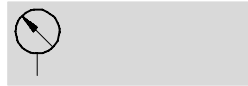
Accessories for vacuum technology


Technical data


Vacuum gauge FVAM, DIN EN 837-1

- Analogue display via Bourdon tube
- Vacuum gauges can be loaded up to $\frac{3}{4}$ of their full scale value under static load and up to $\frac{2}{3}$ under intermittent load conditions.

Function



-  - Temperature range
-10 ... +60 °C

-  - Pressure
-1 ... 0 bar



General technical data		
Nominal tubing size, pressure gauge	40	63
Pneumatic connection	G1/8	G1/4
Operating pressure [bar]	-1 ... 0	-1 ... 0
Operating medium	Dried air, lubricated or unlubricated	
Design	Bourdon tube pressure gauge	
Based on standard	DIN EN 837-1	
Type of mounting	Can be screwed in Panel mounting	
Type of seal on threaded plug	No seal	
Mounting position	Any	
Connection position	Centre, rear side	
Ambient temperature [°C]	-10 ... +60	
Accuracy of measurement, class	2.5	
Factor, continuous load	0.75	
Factor, intermittent load	0.66	

Display		
Nominal tubing size, pressure gauge	40	63
Scale	Double scale bar (outer) inHg/psi (inner)	
Indicating range [bar]	-1 ... 0	-1 ... 0
[inHg]	-30 ... 0	-30 ... 0

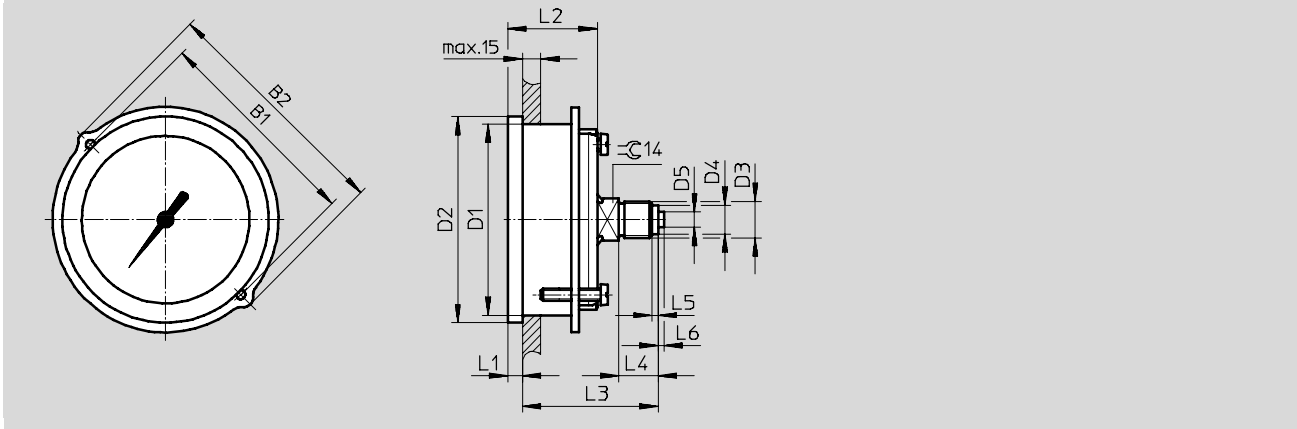
Product weights [g]		
Nominal tubing size, pressure gauge	40	63
FVAM	81	121

Materials	
Housing	Acrylic butadiene styrene
Window shield	Polymethylmethacrylate
Threaded plug	Brass

Accessories for vacuum technology

Technical data

Dimensions



Type	B1	B2	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	L6
FVAM-40	48	56	40	45	G $\frac{1}{8}$	8	-	4.5	26.5	40	10	2	-
FVAM-63	70	79	63	68	G $\frac{1}{4}$	9.5	5	4.8	29.5	42.5	13	2	2

Ordering data

Nominal tubing size, pressure gauge	Pneumatic connection	Indicating range		Part No.	Type
		[bar]	[inHg]		
40	G $\frac{1}{8}$	-1 ... 0	-30 ... 0	537 812	FVAM-40-V1/0-G $\frac{1}{8}$ -EN
63	G $\frac{1}{4}$	-1 ... 0	-30 ... 0	537 813	FVAM-63-V1/0-G $\frac{1}{4}$ -EN

Accessories for vacuum technology

Technical data

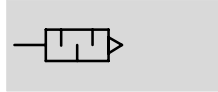
Silencer UO

for vacuum generators

VN-05/07/10/14

→ NO TAG

Function



- Special minimal resistance silencer
- Facilitates trouble-free operation of the vacuum generator

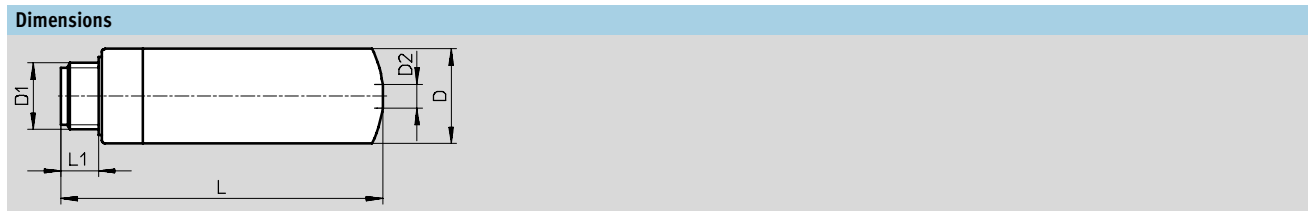


General technical data			
Size	M7	G1/8	G1/4
Pneumatic connection	M7	G1/8	G1/4
Type of mounting	Threaded connection		
Assembly position	Any		
Product weight [g]	2.5	5	8

Operating and environmental conditions		
Operating pressure [bar]	0 ... 8	
Operating medium	Dried compressed air	
Ambient temperature [°C]	-10 ... +60	
Corrosion resistance class CRC ¹⁾	2	

1) Corrosion resistance class 2 according to Festo standard 940 070
 Components requiring moderate corrosion resistance. 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.

Materials	
Silencer insert	Polyethylene
Threaded collar	Polyethylene
Note on materials	Free of copper and PTFE



Connection	D ∅	D1	D2	L	L1
M7	9.8	M7	3	36.7	5.5
G1/8	13.8	G1/8	3.5	48	6.5
G1/4	17.8	G1/4	5.3	62.3	8.5

Ordering data		
Pneumatic connection	Part No.	Type
M7	197 582	UO-M7
G1/8	197 583	UO-1/8
G1/4	197 584	UO-1/4

Accessories for vacuum technology

Technical data

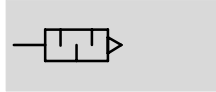
Silencer UOM

Silencer kit UOMS

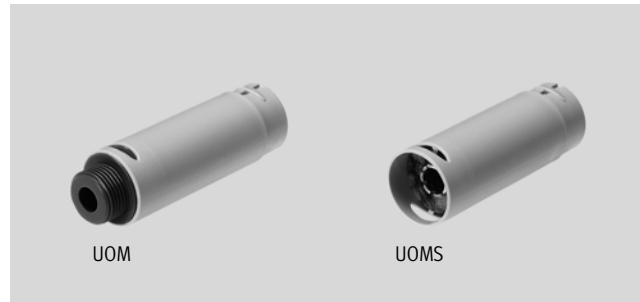
for vacuum generators VN-20/30

➔ NO TAG

Function



- Special minimal resistance silencer
- Facilitates trouble-free operation of the vacuum generator
- Silencer kit for extending the silencer for further noise reduction



General technical data		
Type	UOM	UOMS
Pneumatic connection	G3/8	-
Design	Silencer, open	
Type of mounting	Screw-in	Engaging
Assembly position	Any	
Type of seal on threaded collar	No seal	
Product weight [g]	22.7	17.5

Operating and environmental conditions		
Operating pressure of vacuum generator [bar]	0 ... 8	
Operating medium	Compressed air	
Ambient temperature [°C]	0 ... +60	
Corrosion resistance class CRC ¹⁾	2	

1) Corrosion resistance class 2 according to Festo standard 940 070
 Components requiring moderate corrosion resistance. 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.

Materials	
Housing	Polyacetate
Inner piping	Wrought aluminium alloy
Silencer insert	PU foam
Threaded plug	Polyacetate
Note on materials	Free of copper and PTFE

Dimensions		Download CAD data ➔ www.festo.com/en/engineering
UOM	UOMS	

Ordering data			
Silencer		Silencer kit	
Part No.	Type	Part No.	Type
538 433	UOM-3/8	538 437	UOMS-3/8

New
VN-T6-BP-NRH

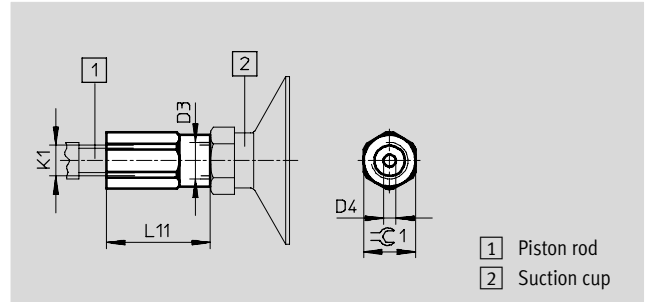
Accessories for vacuum technology

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Accessories

Adapter AD

for suction cups VAS/VASB → NO TAG
for connection of suction cup with
piston rod thread, for example



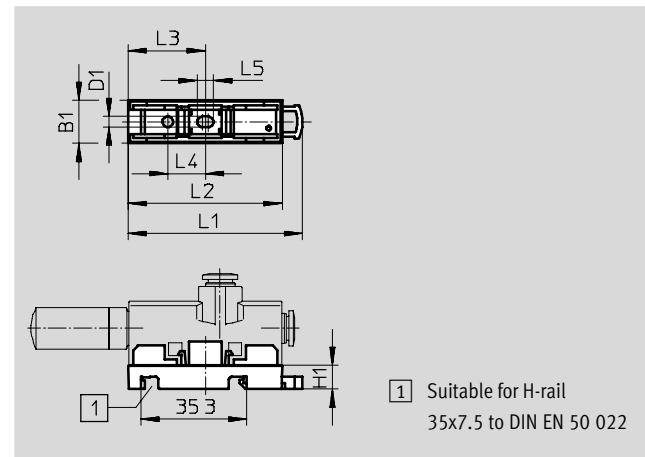
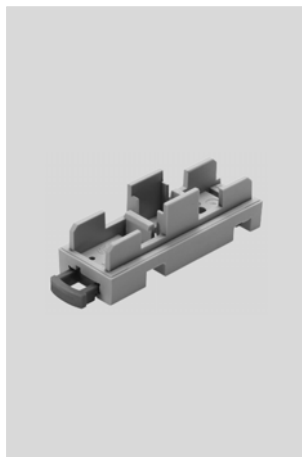
Ordering data						
Pneumatic connection	Vacuum port	D4	L11	⊕ 1	Part No.	Type
K1	D3	∅				
M6	M5	2.3	27	10	157 328	AD-M6-M5
	G1/8	2.3	27	13	157 329	AD-M6-1/8
	G1/4	2.3	30	17	157 330	AD-M6-1/4
M8	G1/8	3.2	29	13	157 331	AD-M8-1/8
	G1/4	3.2	32	17	157 332	AD-M8-1/4
M10x1.25	G1/8	4	31	13	157 333	AD-M10x1,25-1/8
	G1/4	4	34	17	157 334	AD-M10x1,25-1/4
M12x1.25	G1/4	6	34	17	160 256	AD-M12x1,25-1/4
	G3/8	6	37	22	160 257	AD-M12x1,25-3/8

Mounting plate VN

for vacuum generator VN → NO TAG
for mounting on H-rail or via through-hole

Ambient temperature: 0 ... 60 °C

Material:
Plate VN-T2/T3/T4: Polyacetate, reinforced
Plate VN-T6: Polyamide, reinforced
Slide: Polyacetate
Free of copper and PTFE



Dimensions and ordering data												
Width [mm]	B1	D1	H1	L1	L2	L3	L4	L5	CRC ¹⁾	Weight [g]	Part No.	Type
10	10.4	3.5	8	56.5	51	25.5	12.5	5.5	2	3.5	196 951	VN-T2-BP-NRH
14	14.4	3.5	8	57.9	51.2	25.6	12.5	5.5	2	4.5	193 641	VN-T3-BP-NRH
18	18.4									5.5	195 279	VN-T4-BP-NRH
24	24	4.3	7.3	98	91	45.5	32.5	6.3	2	12.4	196 956	VN-T6-BP-NRH

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. 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.

Core Range

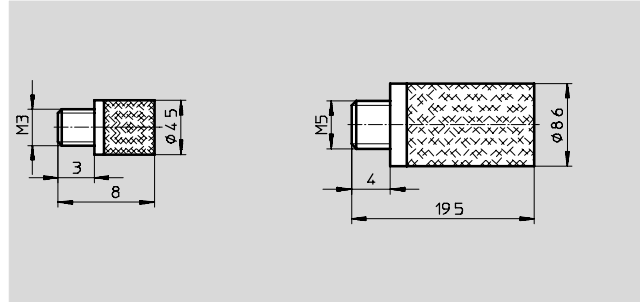
Accessories for vacuum technology

FESTO

Accessories

19.Silencer U

Material:
Sintered bronze



Ordering data			
Connection	Weight [g]	Part No.	Type
M5	5	4 645	U-M5

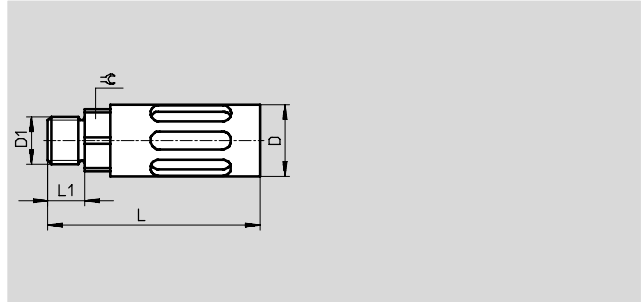
Accessories for vacuum technology



Accessories

21.Silencer U-...-B

Material:
Die-cast metal

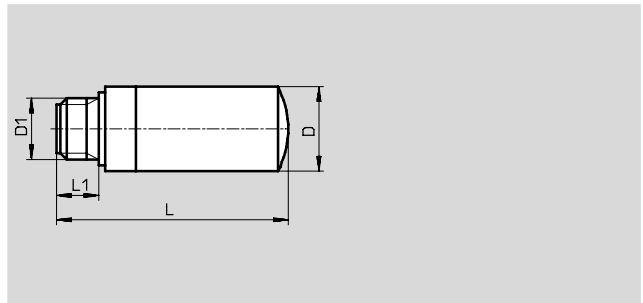


Ordering data							
Connection	D Ø	D1	L	L1	⌀	Part No.	Type
G ¹ / ₈	16	G ¹ / ₈	39.2	5.5	14	6 841	U- ¹ / ₈ -B ¹⁾
G ¹ / ₄	19.5	G ¹ / ₄	55.6	6.5	17	6 842	U- ¹ / ₄ -B ¹⁾
G ³ / ₈	25	G ³ / ₈	86.6	7.5	19	6 843	U- ³ / ₈ -B ¹⁾

1) Free of copper, PTFE and silicone

Silencer UC

Material:
Polyethylene



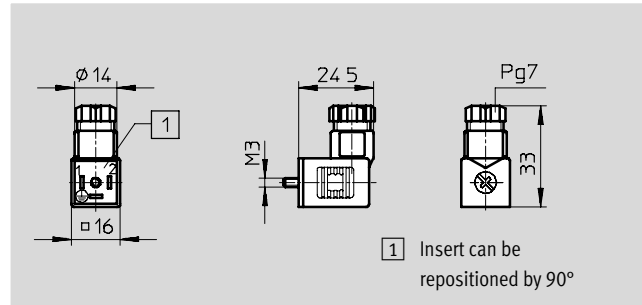
Ordering data							
Connection	D Ø	D1	L	L1	Part No.	Type	
G ¹ / ₈	13.8	G ¹ / ₈	38.0	6.5	161 419	UC- ¹ / ₈	
G ¹ / ₄	17.8	G ¹ / ₄	51.0	8.5	165 004	UC- ¹ / ₄	

Accessories for vacuum technology

FESTO

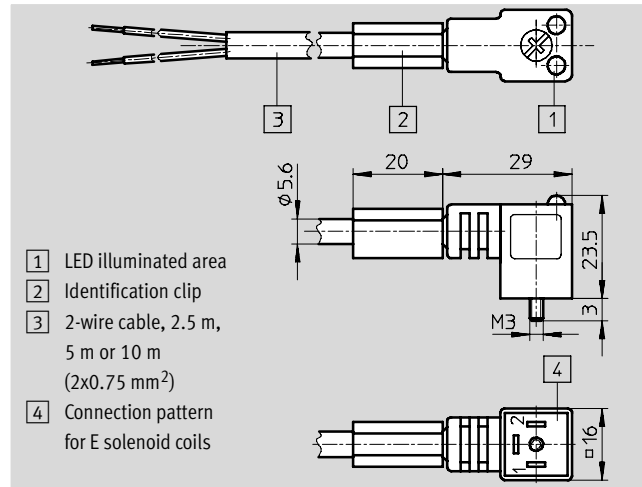
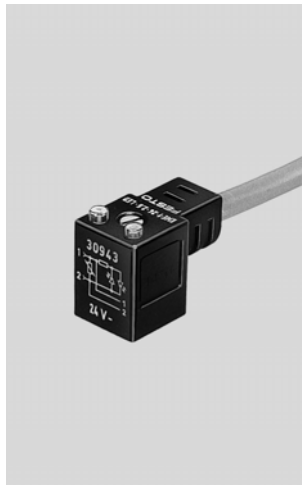
Accessories

Plug socket MSSD-E
for solenoid coil ME



Ordering data			
	Part No.	Type	
Plug socket	14 098	MSSD-E	

Plug socket with cable KME-...
for solenoid coil ME



Ordering data			
Length [m]	Voltage [V DC]	Part No.	Type
2.5	24	30 943	KME-1-24DC-2,5-LED
5	24	30 945	KME-1-24DC-5-LED
10	24	193 455	KME-1-24DC-10-LED

Illuminating seal ME-...
for solenoid coil ME



Ordering data			
Voltage [V DC]	Part No.	Type	
24	19 141	ME-LD-12-24DC	

Vacuum accessories

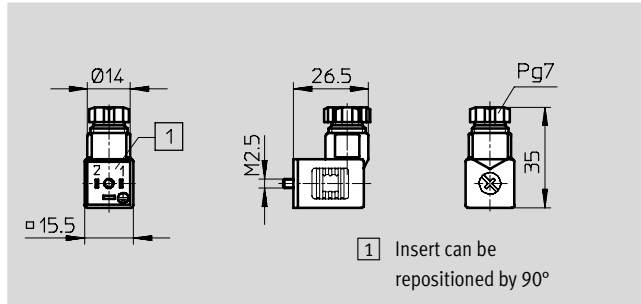
4.1

Accessories for vacuum technology



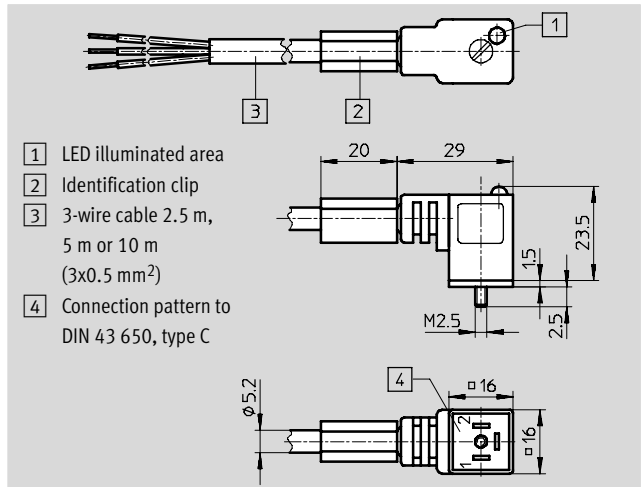
Accessories

24.Plug socket MSSD-EB for solenoid coil MEB



Ordering data		Part No.	Type
Plug socket		151 687	MSSD-EB

25.Plug socket with cable KMEB-... for solenoid coil MEB



Ordering data			
Length [m]	Voltage [V DC]	Part No.	Type
2.5	24	151 688	KMEB-1-24DC-2,5-LED
5.0	24	151 689	KMEB-1-24DC-5-LED
10.0	24	193 457	KMEB-1-24DC-10-LED

Illuminating seal MEB-... for solenoid coil MEB



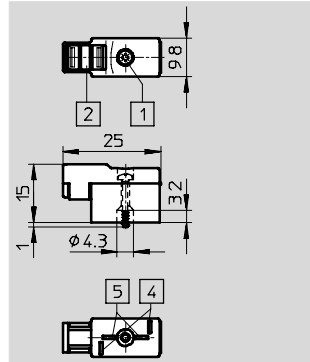
Ordering data		
Voltage [V DC]	Part No.	Type
24	151 717	MEB-LD-12-24DC

Core Range

Accessories for vacuum technology

Accessories

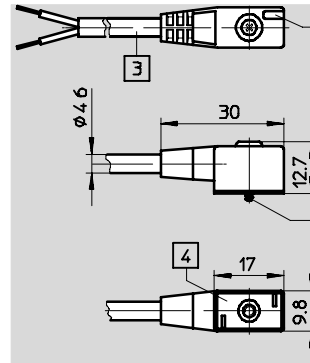
Plug socket MSSD-ZBZC
for solenoid coils MZB, MYB



- 1 Mounting screw (self-tapping KB 18x12) max. tightening torque 0.3 Nm
- 2 Identification plates
- 4 Connection pattern for MSZB
- 5 Connection pattern for MSZC

Ordering data		
	Part No.	Type
Plug socket	185 521	MSSD-ZBZC

Plug socket with cable KMYZ-...-LED
for solenoid coils MZB, MYB



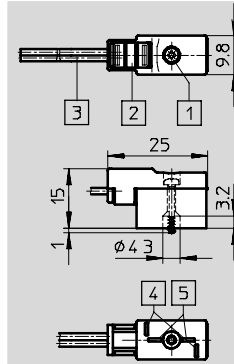
- 1 LED illuminated area
- 2 Mounting screw (self-tapping KB 18x12/4) max. tightening torque 0.3 Nm
- 3 2-wire cable 2.5 m, 5 m or 10 m (2x0.35 mm²)
- 4 Connection pattern for ZB solenoid coils

Ordering data		
Length [m]	Part No.	Type
2.5	34 997	KMYZ-2-24-2,5-LED
5.0	34 998	KMYZ-2-24-5-LED
10.0	193 443	KMYZ-2-24-10-LED

Accessories for vacuum technology

Accessories

Plug socket with cable KMYZ-...
for solenoid coils MZB, MYB



- 1 Mounting screw (self-tapping KB 18x12) max. tightening torque 0.3 Nm
- 2 Identification plates
- 3 2-wire cable 0.5 m or 2.5 m (1x0.35 mm², 1x0.34 mm²)
- 4 Connection pattern for MSZB
- 5 Connection pattern for MSZC

Ordering data		
Length [m]	Part No.	Type
0.5	185 519	KMYZ-4-24-0,5
2.5	185 520	KMYZ-4-24-2,5

Accessories for vacuum technology

Accessories



Plug socket with cable SIM-M8-3...

Material:
Polyurethane

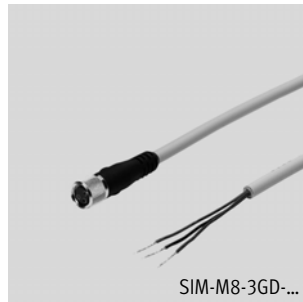


SIM-M8-3GD-...

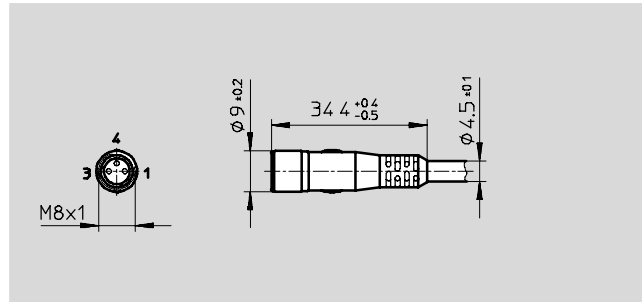
SIM-M8-3WD-...

Plug socket with cable SIM-M8-3...

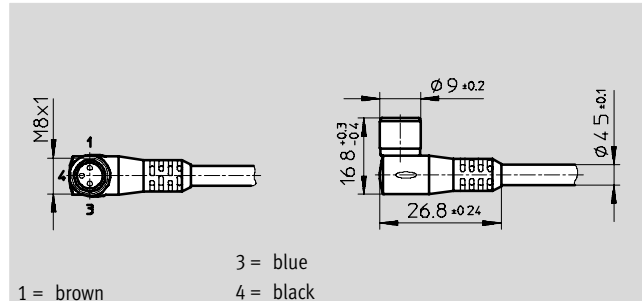
Material:
Polyurethane



SIM-M8-3GD-...



SIM-M8-3WD-...



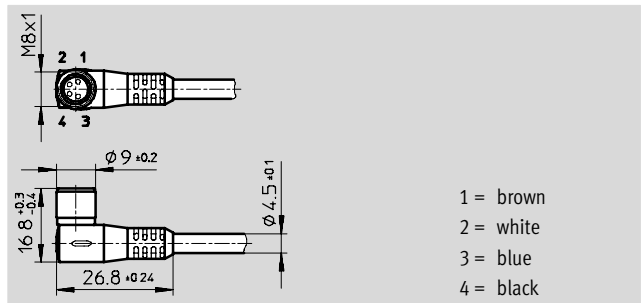
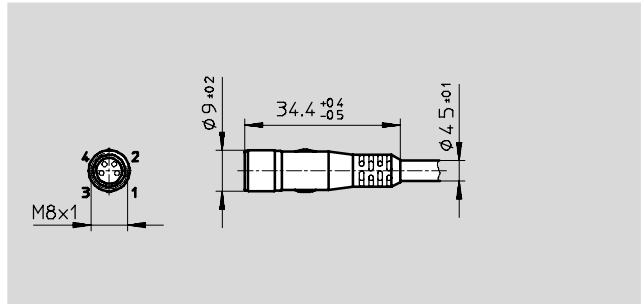
Ordering data			Technical data → Volume 4		
Ordering data			Technical data → www.festo.com		
Electrical connection	Cable length [m]	Connection direction		Part No.	Type
		Inline	Lateral		
M8x1, 3-pin	2.5	■	–	159 420	SIM-M8-3GD-2,5-PU
		–	■	159 422	SIM-M8-3WD-2,5-PU
	5	■	–	159 421	SIM-M8-3GD-5-PU
		–	■	159 423	SIM-M8-3WD-5-PU
	10	■	–	192 964	SIM-M8-3GD-10-PU
		–	■	192 965	SIM-M8-3WD-10-PU

Accessories for vacuum technology

Accessories

30.Plug socket with cable SIM-M8-4...

Material:
Polyurethane



Ordering data			Technical data → Volume 4		
Ordering data			Technical data → www.festo.com		
Electrical connection	Cable length [m]	Connection direction		Part No.	Type
		Inline	Lateral		
M8x1, 4-pin	2.5	■	–	158 960	SIM-M8-4GD-2,5-PU
		–	■	158 962	SIM-M8-4WD-2,5-PU
	5	■	–	158 961	SIM-M8-4GD-5-PU
		–	■	158 963	SIM-M8-4WD-5-PU

Accessories for vacuum technology

Accessories

FESTO

Valves suitable for vacuum

In contrast to the vacuum generator, the vacuum pump is an instrument for central vacuum generation that evacuates the entire network and does not create a vacuum directly on an installation – as is the case with the generator. From this network – or the

connected reservoirs – tubing is connected, which draws the vacuum. This requires the use of valves or valve terminals suitable for vacuum, which have a short response time in order to be able to achieve the shortest

possible evacuation times despite remote vacuum generation. The most important characteristic of these valves is their nominal size, as it determines the maximum suction rate and therefore the evacuation time.

The evacuation times to be achieved are also derived from the laval nozzle diameter of the vacuum generator. The evacuation time is thus the connection between the nominal valve size and laval nozzle diameter.

For vacuum generators with high vacuum ...

- Vacuum generator VN
- Vacuum generator VAD
- Vacuum generator VADM/VADMI
- Vacuum generator VAD-M

For vacuum generators with high suction rate ...

- Vacuum generator VN

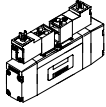
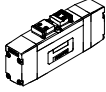
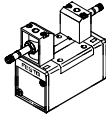
... the following rules of thumb apply:

$$\frac{\text{Valve nom. size}}{3} = \text{Laval nozzle dia.}$$

$$\frac{\text{Valve nom. size}}{4} = \text{Laval nozzle dia.}$$

Standard directional control valves

→ Volume 2

	ISO size	Pneumatic connection	Nominal size [mm]	Response time [ms]		Function	Type
				On	Off		
Solenoid valves, ISO 15407-1							
	02	G1/8	6	18 ... 23	27 ... 34	5/2-way valve	MN2H-5/2-...-02-S
				16	16		JMN2H-5/2-...-02-S
	01	G1/4	8	24 ... 31	43 ... 58		MN2H-5/2-...-01-S
				16 ... 18	18		JMN2H-5/2-...-01-S
Pneumatic valves, ISO 15407-1							
	02	G1/8	6	8 ... 9	18	5/3-way valve	VL-5/3G-...-02
				6	6	5/2-way valve	J-5/2-...-02
				6	6		JD-5/2-...-02
	01	G1/4	8	13	32 ... 38	5/3-way valve	VL-5/3-...-01
				10	10	5/2-way valve	J-5/2-...-01
				9	9		JD-5/2-...-01
Solenoid valves, ISO 5599-1							
	1	G1/4	8	16 ... 23	35 ... 45	5/2-way valve	MFH-...-S-C
				16	16	5/3-way valve	JMFH-...-S-C
				17...23	32 ... 39		MN1H-...-S-C
				18	18		JMN1H-...-S-C
	2	G3/8	11.5	27 ... 48	71 ... 73		MFH-...-S-C
				18	18		JMFH-...-S-C
				24 ... 46	62 ... 69		MN1H-...-S-C
				21	21		JMN1H-...-S-C
	3	G1/2	14.5	30 ... 60	66 ... 82		MFH-...-S-C
				18	18		JMFH-...-S-C
				33 ... 49	71 ... 74		MN1H-...-S-C
				21	21		JMN1H-...-S-C

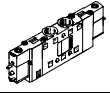
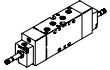
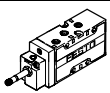
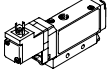
Accessories for vacuum technology

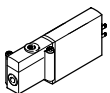
Accessories

FESTO

Vacuum accessories

4.1

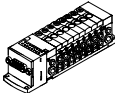
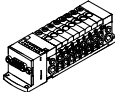
Directional control valves for general applications						→Volume 2
	Pneumatic connection	Nominal size [mm]	Response time [ms]		Function	Type
			On	Off		
Solenoid valves CPE, Compact Performance						
	M5, M7, G1/8, G1/4, G3/8, push-in connector 4, 6, 8, 10, 12 mm	6	12 ... 27	12 ... 42	3/2-way valve	CPE14-...-S
		8	13 ... 28	13 ... 38	5/2-way valve	CPE18-...-S
		11	25 ... 50	25 ... 55	5/3-way valve	CPE24-...-S
Solenoid valves, Tiger 2000						
	G1/8	8	10 ... 24	12 ... 30	5/2-way valve	JMFH-...-S-B
			18 ... 30	18 ... 36	5/3-way valve	JMVH-...-S-B
	G1/4	10	14 ... 34	14 ... 44		JMFH-...-S-B
			16 ... 33	16 ... 40		JMVH-...-S-B
	G3/8	12	14 ... 36	14 ... 82		JMFH-...-S-B
			17 ... 32	17 ... 88		JMVH-...-S-B
Solenoid valves, Tiger Classic						
	G1/8	5	9	29	3/2-way valve	MFH-3-...-S
			4	10	5/2-way valve	VL/O-3-...-B
	G1/4	7	10	29		MFH-3-...-S
			8	30		VL/O-3-...-B
	G1/2	14	18	90		MFH-3-...-S
			17	30		VL/O-3-...-B
	G3/4	19	40	29		MFH-3-...-S
			23	23		VL/O-3-...-B
Solenoid valves, midi pneumatics						
	G1/8	5	10 ... 15	18 ... 28	3/2-way valve	MEBH-5/2-...
			10	10	5/2-way valve	JMEBH-5/2-...
			12	25	5/3-way valve	MEBH-5/3-...
			10 ... 15	18 ... 28		MEH-5/2-...
			10	10		JMEH-5/2-...
			12	25		MEH-5/3-...

Application-optimised directional control valves						→Volume 2
	Pneumatic connection	Nominal size [mm]	Response time [ms]		Function	Type
			On	Off		
Solenoid valves MH2, MH3, fast switching valves						
	M5, M7, QS4	2	2 ... 7	2 ... 7	3/2-way valve	MHE/P/A2-...
	G1/8, QS6	3				MHE/P/A3-...

Accessories for vacuum technology

Accessories

FESTO

Application-optimised valve terminals → Volume 4						
	Pneumatic connection	Nominal size [mm]	Response time [ms]		Function	Type
			On	Off		
Valve terminal type 82 CPASC1, Smart Cubic						
	M5, push-in connectors 3, 4 mm	2.5	10	25	2/2-way valve	CPASC1-M1H-B-...
			10	25	3/2-way valve	CPASC1-M1H-G-...
			10	25	5/2-way valve	CPASC1-M1H-E-...
			10	20	5/3-way valve	CPASC1-M1H-X-...
Valve terminal type 80 CPVSC1, Smart Cubic						
	M5, push-in connectors 3, 4 mm	2.5	10	10	2/2-way valve	CPVSC1-M1H-D-P
					3/2-way valve	CPVSC1-M1H-M-P
					5/2-way valve	CPVSC1-M1H-J-P
						CPVSC1-M1H-N-P
						CPVSC1-M1H-K-P

Accessories for vacuum technology

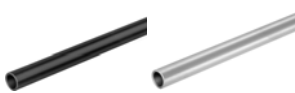









Accessories

FESTO

Modern connection technology

Festo offers a broad spectrum of tubing accessories in nominal sizes ranging from 2 ... 28 mm.

The range of accessories from Festo assures clear-cut control system layouts and easy assembly.

Product overview	Brief description	→ Volume 3
Pipes		
	<ul style="list-style-type: none"> ■ Plastic pipes ■ Metal pipes 	
Tubing		
	<ul style="list-style-type: none"> ■ Standard O.D., standard I.D. ■ Operating medium: Compressed air, water, vacuum ■ Variants: Temperature and chemical resistant, hydrolysis resistant, suitable for foodstuffs 	
Spiral tubing		
	<ul style="list-style-type: none"> ■ Standard O.D. ■ Operating medium: Compressed air, water, vacuum ■ Materials: Polyamide, polyurethane 	
Push-in fittings		
	<ul style="list-style-type: none"> ■ Threaded connection: Metric thread, G thread, R thread ■ Suitable for vacuum ■ Variants: Metal, stainless steel, flame retardant, antistatic 	
Plugs/couplings		
	<ul style="list-style-type: none"> ■ Threaded connection: Metric thread, G thread ■ Self-sealing, shut-off on one side, safety coupling ■ Variants: Male thread, female thread 	
Distributors		
	<ul style="list-style-type: none"> ■ Connection sizes: M3 ... G½ 	
Tubing cutters		
	<ul style="list-style-type: none"> ■ Pipe and tubing cutters 	
Protective conduits		
	<ul style="list-style-type: none"> ■ Flexible, separable, fittings, adapters, connectors, distributors 	
Air reservoirs		
	<ul style="list-style-type: none"> ■ EC directive 87/404 ■ Variants: Stainless steel 	
Air guns		
	<ul style="list-style-type: none"> ■ Variant: Air-saving function 	