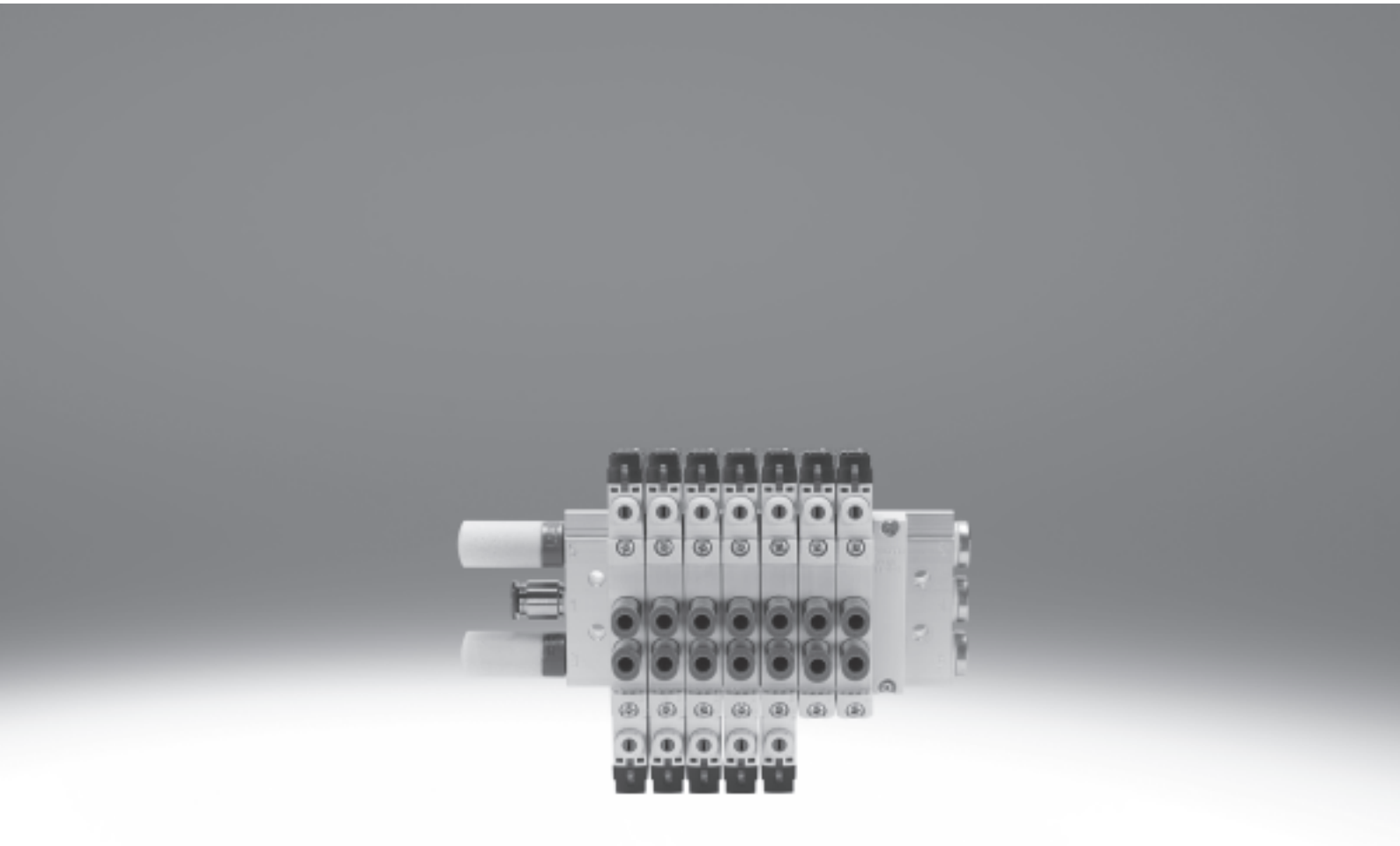
Solenoid valves VUVG

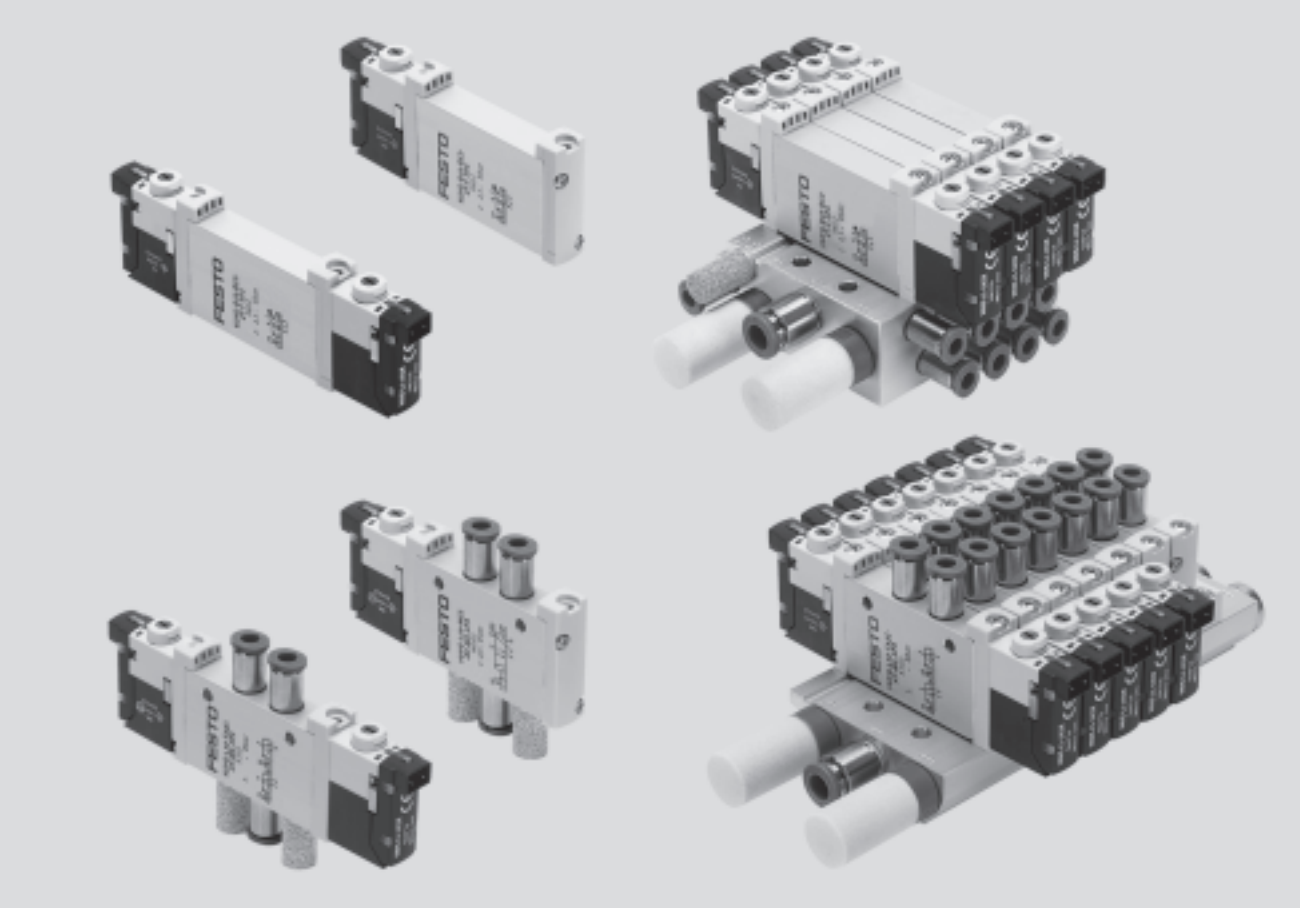
FESTO



New
VUVG

Solenoid valves VUVG

Key features



Innovative

- Internal or external pilot air supply can be set for valve manifolds with sub-base valves
- Connection technology can be easily changed via electric sub-base (electronics box)

Versatile

- Wide range of valve functions
- Choice of quick push-in connectors
- In-line valves can be used as individual valves or manifold valves
- M5 and M7 in-line valves can be combined on one manifold rail
- Identical sub-base valves for M5 or M7 manifold rail
- Valve manifolds with pressure zones

Reliable

- Sturdy and durable metal components
  - valves,
  - manifold rails
- Fast troubleshooting thanks to LEDs
- Reliability of service thanks to valves that can be replaced easily and quickly
- Choice of non-detenting, detenting or covered manual override
- LED integrated in the valve

Easy to mount

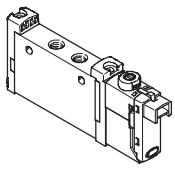
- Secure mounting on wall or H-rail
- Easy mounting thanks to captive screws and seal
- Connection technology can be easily changed via electric sub-base

Solenoid valves VUVG

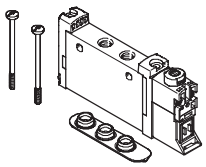
Key features

FESTO

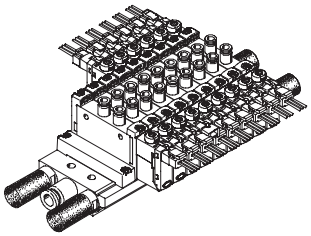
Individual valves and valve manifolds



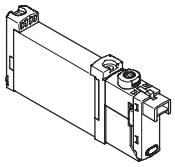
VUVG-L in-line valve
as individual valve



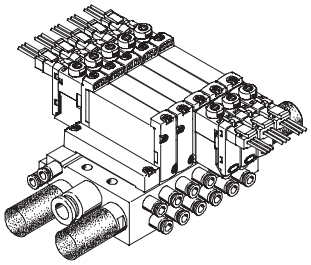
VUVG-S in-line valve
for manifold assembly



VUVG-S valve manifold consisting
of in-line valves

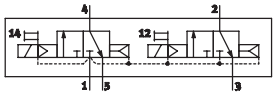


VUVG-B sub-base valve
for manifold assembly

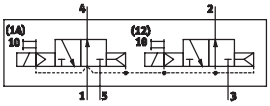


VUVG-B valve manifold consisting
of sub-base valves

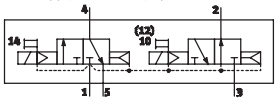
Functions – In-line valve



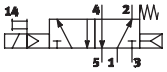
T32C: 2x3/2-way valve with internal pilot air supply, 2x normally closed



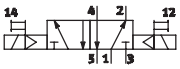
T32U: 2x3/2-way valve with internal pilot air supply, 2x normally open



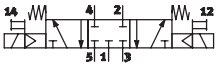
T32H: 2x3/2-way valve with internal pilot air supply, 1x normally closed, 1x normally open



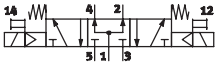
M52: 5/2-way valve, single solenoid, with internal pilot air supply



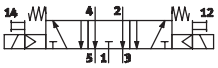
B52: 5/2-way valve, double solenoid, with internal pilot air supply



P53C: 5/3-way valve with internal pilot air supply, normally closed

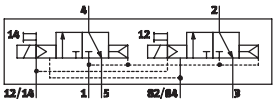


P53U: 5/3-way valve with internal pilot air supply, normally open

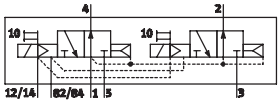


P53E: 5/3-way valve with internal pilot air supply, normally exhausted

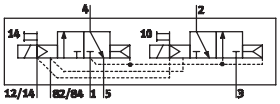
Functions – Sub-base valve



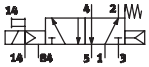
T32C: 2x3/2-way valve with external pilot air supply, 2x normally closed



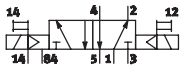
T32U: 2x3/2-way valve with external pilot air supply, 2x normally open



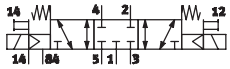
T32H: 2x3/2-way valve with external pilot air supply, 1x normally closed, 1x normally open



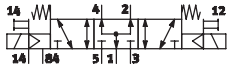
M52: 5/2-way valve, single solenoid, with external pilot air supply



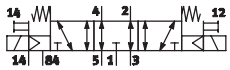
B52: 5/2-way valve, double solenoid, with external pilot air supply



P53C: 5/3-way valve with external pilot air supply, normally closed



P53U: 5/3-way valve with external pilot air supply, normally open



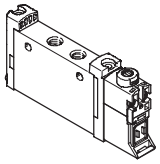
P53E: 5/3-way valve with external pilot air supply, normally exhausted

Solenoid valves VUVG

Key features

FESTO

VUVG basic valves



- Valve width 10 mm
- In-line valves
- Sub-base valves
- For 2x3/2-way, 5/2-way and 5/3-way valves

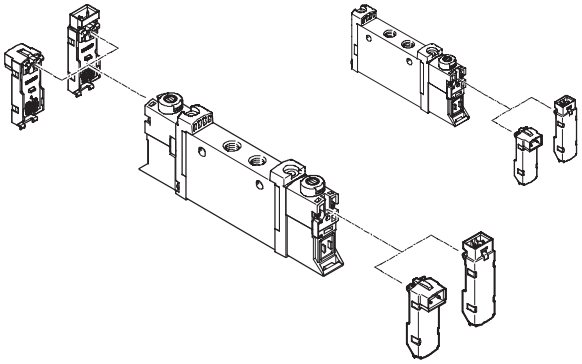
Electric sub-bases

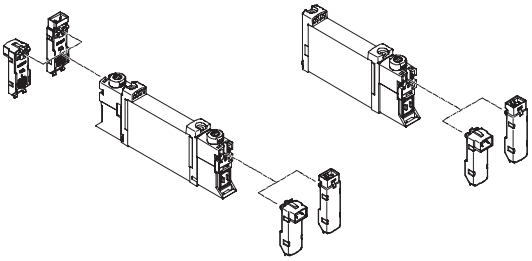

H2


H3

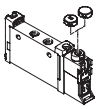
- 5, 12 and 24 V DC
- With or without holding current reduction
- LED

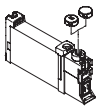
Combinations of basic valve and electric sub-base





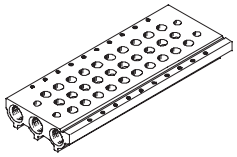
Cover caps for manual override





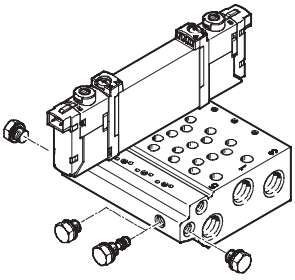
- Closed cap for covering the manual override
- Slotted cap for setting the manual override to non-detenting

Manifold rail for in-line valves



- For M5 and M7 in-line valves, valve width 10
- For 2x3/2-way, 5/2-way and 5/3-way valves
- 2 to 10 and 12, 14, 16 valve positions

Manifold rail for sub-base valves



- For sub-base valves, valve width 10
- Manifold rail with M5 or M7 working lines
- For 2x3/2-way, 5/2-way and 5/3-way valves
- 2 to 10, 12, 14 and 16 valve positions
- The sub-base valves are supplied externally with pilot air
- The valve manifold can be operated with either internal or external pilot air supply by using blanking plugs

Blanking plate for vacant position

- Vacant position cover

Supply plate

- For an additional air supply and exhausting via a valve position

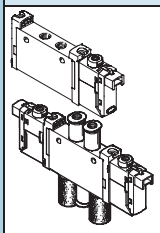
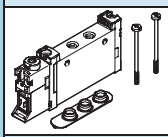
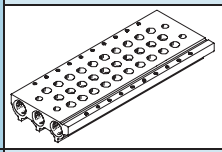
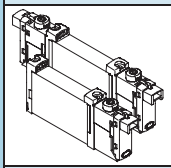
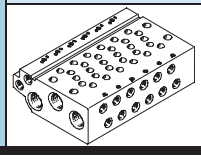
Separator for pressure zones

- For creating multiple pressure zones on valve manifolds

Solenoid valves VUVG

Product range overview

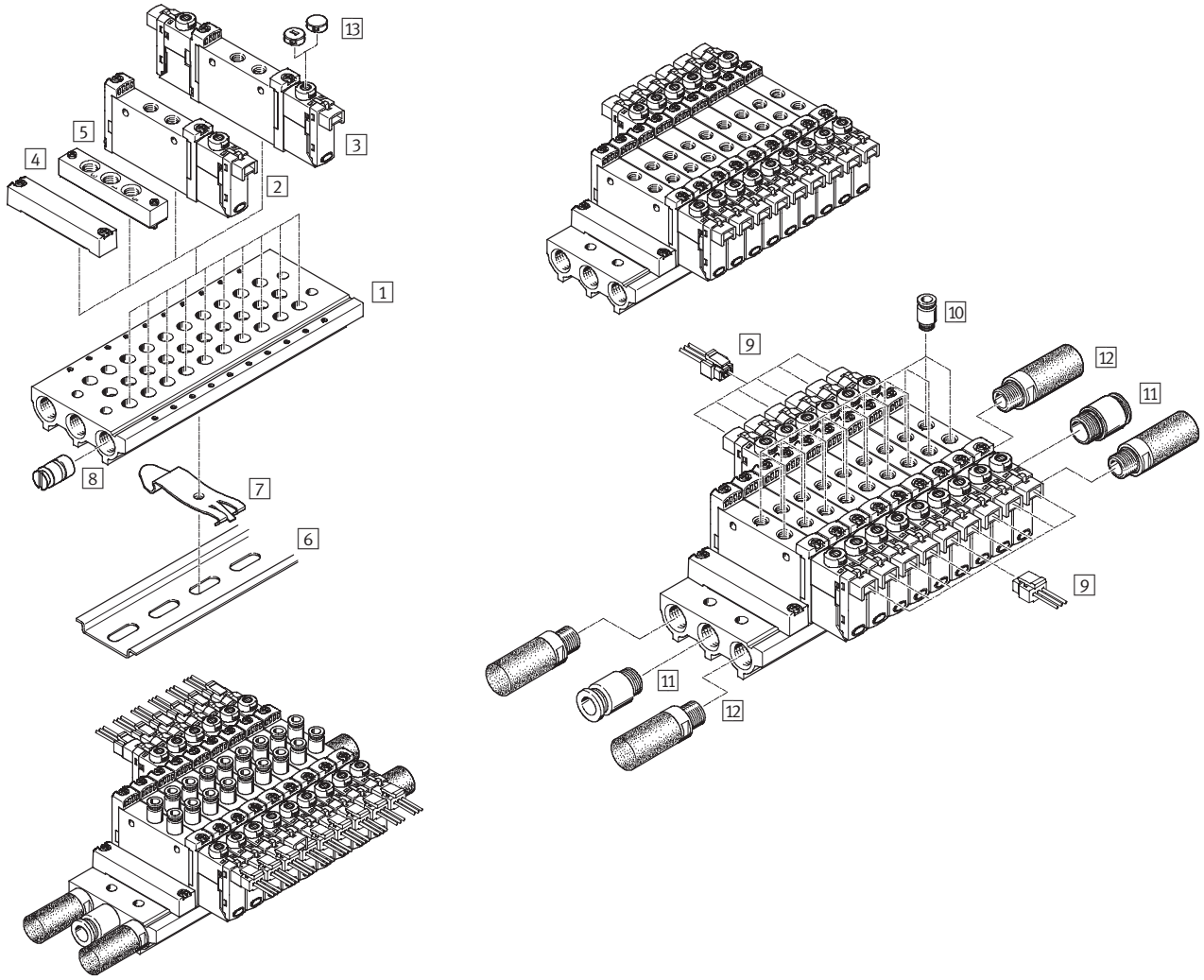
FESTO

Design		Working line	Functions and flow rate [l/min]								→ Page/ Internet
			T32C	T32U	T32H	M52	B52	P53C	P53U	P53E	
In-line valve as individual valve	Solenoid valve VUVG-L										
		M5	■ 150	■ 150	■ 150	■ 220	■ 220	■ 210	■ 210	■ 210	7
		M7	■ 190	■ 190	■ 190	■ 380	■ 380	■ 320	■ 320	■ 320	9
In-line valve for manifold assembly	Solenoid valve VUVG-S										
		M5	■ 150	■ 150	■ 150	■ 220	■ 220	■ 210	■ 210	■ 210	7
		M7	■ 170	■ 170	■ 170	■ 340	■ 340	■ 300	■ 300	■ 300	9
	Manifold rail VABM- ... -S- ...										
		–	■	■	■	■	■	■	■	■	12
Sub-base valve for manifold assembly	Solenoid valve VUVG-B										
		–	■ 170	■ 170	■ 170	■ 330	■ 330	■ 300	■ 300	■ 300	15
	Manifold rail VABM- ... -W- ... (M5) and VABM- ... -HW- ... (M7)										
		M5	■ 150	■ 150	■ 150	■ 210	■ 210	■ 200	■ 200	■ 200	18
		M7	■ 160	■ 160	■ 160	■ 270	■ 270	■ 250	■ 250	■ 250	

Solenoid valves VUVG-L and VUVG-S, in-line valves

System overview

Manifold assembly



Manifold assembly and accessories

		Type	Brief description	➔ Page/Internet
1	Manifold rail	VABM-L1-10S-G18-...	For 2 to 10, 12, 14 and 16 valve positions	12
2	Solenoid valve	VUVG- ...	In-line valve, 5/2-way single solenoid	7
3	Solenoid valve	VUVG- ...	In-line valve, 2x3/2-way, 5/2-way double solenoid and 5/3-way single solenoid	7
4	Blanking plate	VABB-L1-10-S	For covering an unused valve position	12
5	Supply plate	VABF-L1-10-P3A4- ...	For air supply 1 and outlet port 3 and 5	12
6	H-rail	NRH-35-2000	For attaching the valve manifold	21
7	H-rail mounting	VAME-T-M4	2 pieces for mounting on the manifold rail	21
8	Blanking plug	VABD-8-B	Separator for pressure zones	12
9	Plug socket with cable	NEBV-H1G2-KN-...-LE2	For electric sub-base H2 and H3	21
10	Push-in fitting	QS...	Quick push-in fitting for outlet port 2 and 4	21
11	Push-in fitting	QS...	Quick push-in fitting for air supply 1	quick star
12	Silencer	U...	For outlet port 3 and 5	21
13	Cover cap	VMPA-HB...-B	For manual override	21

Solenoid valves VUVG-L and VUVG-S, in-line valves M5

Technical data

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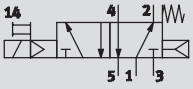
Function
2x3/2C, 2x3/2U, 2x3/2H
5/2-way single solenoid
5/2-way double solenoid
5/3C, 5/3U, 5/3E

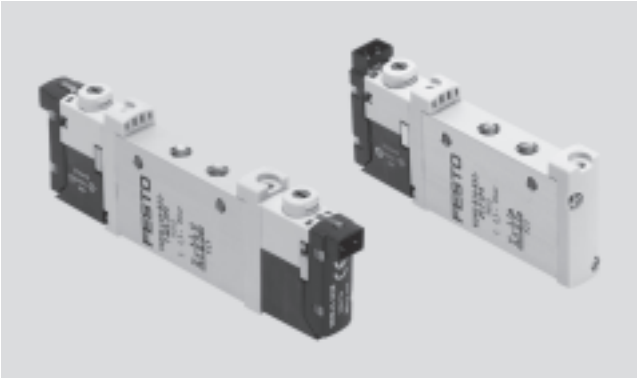


E.g. 5/2-way valve with internal pilot air supply and combined reset with mechanical plus pneumatic spring

Width 10 mm

Flow rate
150 ... 220 l/min

Voltage
5, 12 and 24 V DC



General technical data									
Valve function		2x3/2-way			5/2		5/3		
Normal position		C[1]	U[2]	H[4]	–	–	C[1]	U[2]	E[3]
Memory stability		Monostable				Bistable	Monostable		
Pneumatic spring reset method		Yes			Yes[5]	–	No		
Mechanical spring reset method		No			Yes[5]	–	Yes		
Design		Piston spool valve							
Sealing principle		Soft							
Actuation type		Electric							
Type of control		Piloted							
Pilot air supply		Internal or external							
Exhaust function		Flow control							
Manual override		Choice of non-detenting, detenting or covered							
Type of mounting		Optionally via through-holes[7] or on manifold rail							
Mounting position		Any							
Nominal size	[mm]	2.7			3.2				
Standard nominal flow rate	[l/min]	150			220		210		
Flow rate on manifold rail	[l/min]	150			220		210		
Switching time on/off	[ms]	6/16			7/19	–	10/30		
Changeover time	[ms]	–				7	16		
Width	[mm]	10							
Port 1, 2, 3, 4, 5		M5							
Product weight	[g]	55			45	55			
Corrosion resistance class	CRC	2[6]							

1) C = Normally closed.
2) U = Normally open.
3) E = Normally exhausted.
4) H = 2x3/2-way valve in one housing with 1x normally closed and 1x normally open.
5) Combined reset method.
6) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
7) If multiple valves are to be screwed together via the through-holes to form a block, a minimum distance of 0.3 mm must be ensured by inserting spacers.

Solenoid valves VUVG-L and VUVG-S, in-line valves M5

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Technical data

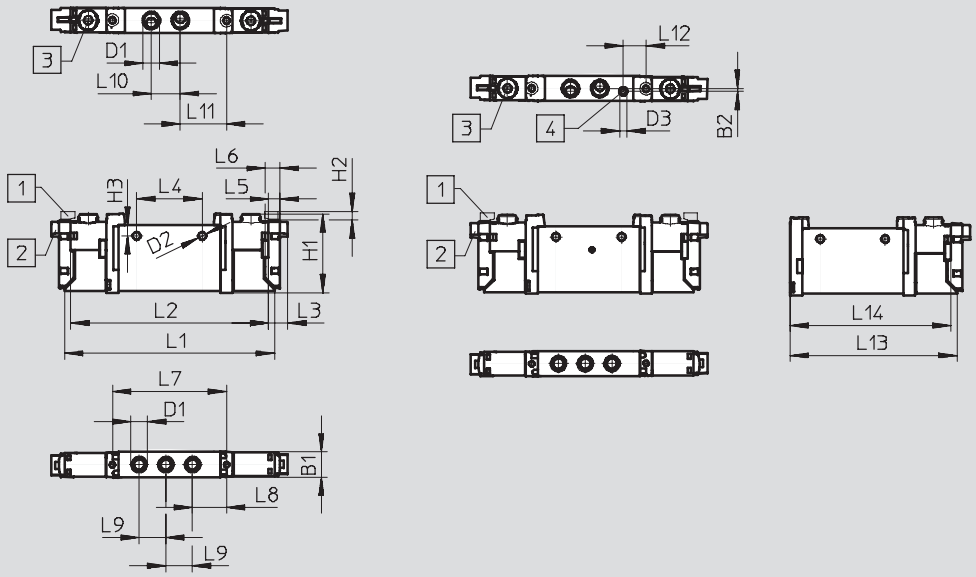
Operating and environmental conditions						
Valve function			2x3/2-way	5/2-way single solenoid	5/2-way double solenoid	5/3-way
Operating medium			Filtered compressed air, grade of filtration 40 µm, lubricated or unlubricated			
Operating pressure	Internal pilot air supply	[bar]	1.5 ... 8	2.5 ... 8	1.5 ... 8	3 ... 8
Ambient temperature		[°C]	–5 ... +50, –5 ... +60 with holding current reduction			
Temperature of medium		[°C]	–5 ... +50, –5 ... +60 with holding current reduction			

Electrical data		
Electrical connection		Via electric sub-base
Operating voltage	[V DC]	5, 12 and 24 ±10%
Output	[W]	1, reduced to 0.35 via holding current reduction
Duty cycle	[%]	100
Protection class to EN 60529		IP40 (with plug socket)

Information on materials	
Housing	Wrought aluminium alloy
Seals	HNBR, NBR
Note on materials	RoHS-compliant

Dimensions Download CAD Data ➔ **www.festo.com/us/cad**

2x3/2-way, 5/2-way and 5/3-way valves



1 Vertical electrical connection
2 Horizontal electrical connection
3 Manual override
4 Port for external pilot air supply (not active)

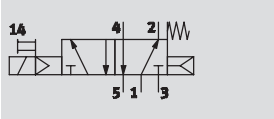
Type												
VUVG-L-10 -...-M5 ...	B1	B2	D1	D2	D3	H1	H2	H3	L1	L2	L3	L4
VUVG-S-10 -...-M5 ...	10	–	M5	3.2	–	32.5	3.6	4.4	86.5	81.5	8	27
	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14		
	4.85	6.15	47	14	11	12	19	–	69.2	66.7		

Solenoid valves VUVG-L and VUVG-S, in-line valves M7

Technical data

FESTO

Function
2x3/2C, 2x3/2U, 2x3/2H
5/2-way single solenoid
5/2-way double solenoid
5/3C, 5/3U, 5/3E

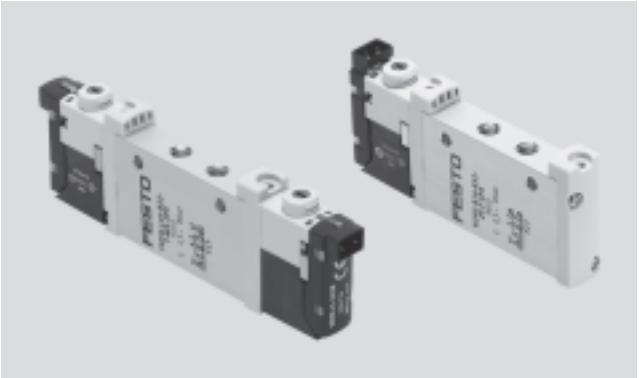


E.g. 5/2-way valve with internal pilot air supply and combined reset with mechanical plus pneumatic spring

Width 10 mm

Flow rate
190 ... 380 l/min

Voltage
5, 12 and 24 V DC



General technical data									
Valve function		2x3/2-way			5/2-way		5/3-way		
Normal position		C[1]	U[2]	H[4]	–	–	C[1]	U[2]	E[3]
Memory stability		Monostable				Bistable	Monostable		
Pneumatic spring reset method		Yes			Yes[5]	–	No		
Mechanical spring reset method		No			Yes[5]	–	Yes		
Design		Piston spool valve							
Sealing principle		Soft							
Actuation type		Electric							
Type of control		Piloted							
Pilot air supply		Internal or external							
Exhaust function		Flow control							
Manual override		Choice of non-detenting, detenting or covered							
Type of mounting		Optionally via through-holes[7] or on manifold rail							
Mounting position		Any							
Nominal size	[mm]	2.7			4.0		3.5		
Standard nominal flow rate	[l/min]	190			380		320		
Flow rate on manifold rail	[l/min]	170			340		300		
Switching time on/off	[ms]	6/16			7/19	–	10/30		
Changeover time	[ms]	–				7	16		
Width	[mm]	10							
Port 1, 2, 3, 4, 5		M7							
Product weight	[g]	55			45	55			
Corrosion resistance class	CRC	2[6]							

1) C = Normally closed.
2) U = Normally open.
3) E = Normally exhausted.
4) H = 2x3/2-way valve in one housing with 1x normally closed and 1x normally open.
5) Combined reset method.
6) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
7) If multiple valves are to be screwed together via the through-holes to form a block, a minimum distance of 0.3 mm must be ensured by inserting spacers.

Solenoid valves VUVG-L and VUVG-S, in-line valves M7

Technical data

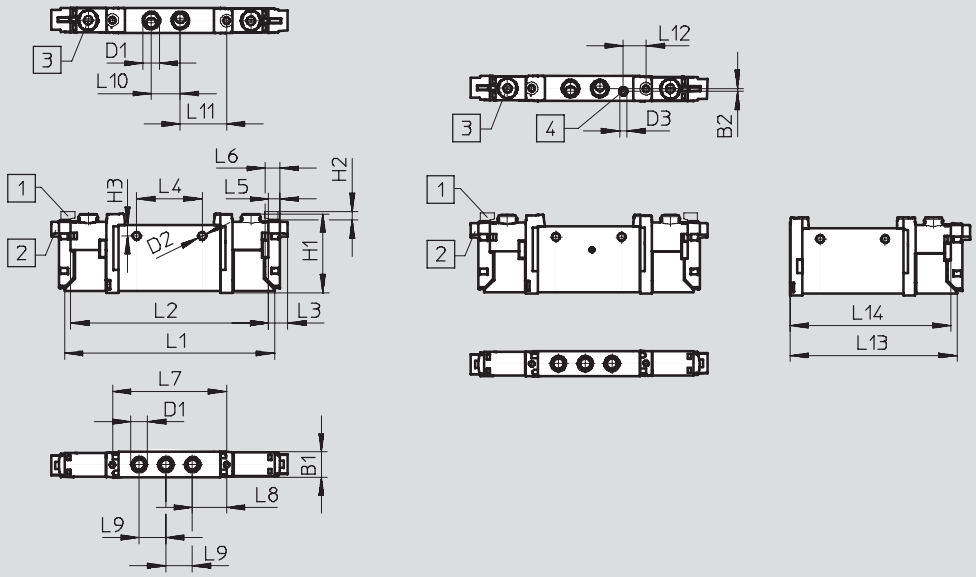
Operating and environmental conditions						
Valve function			2x3/2-way	5/2-way single solenoid	5/2-way double solenoid	5/3-way
Operating medium			Filtered compressed air, grade of filtration 40 µm, lubricated or unlubricated			
Operating pressure	Internal pilot air supply	[bar]	1.5 ... 8	2.5 ... 8	1.5 ... 8	3 ... 8
Ambient temperature		[°C]	–5 ... +50, –5 ... +60 with holding current reduction			
Temperature of medium		[°C]	–5 ... +50, –5 ... +60 with holding current reduction			

Electrical data		
Electrical connection		Via electric sub-base
Operating voltage	[V DC]	5, 12, 24 ±10%
Output	[W]	1, reduced to 0.35 via holding current reduction
Duty cycle	[%]	100
Protection class to EN 60529		IP40 (with plug socket)

Information on materials	
Housing	Wrought aluminium alloy
Seals	HNBR, NBR
Note on materials	RoHS-compliant

Dimensions Download CAD Data ➔ **www.festo.com/us/cad**

2x3/2-way, 5/2-way and 5/3-way valves



1 Vertical electrical connection
2 Horizontal electrical connection
3 Manual override
4 Port for external pilot air supply (not active)

Type												
VUVG-L-10 -...-M7 ...	B1	B2	D1	D2	D3	H1	H2	H3	L1	L2	L3	L4
VUVG-S-10 -...-M7 ...	10	–	M5	3.2	–	32.5	3.6	4.4	86.5	81.5	8	27
	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14		
	4.85	6.15	47	14	11	12	19	–	69.2	66.7		

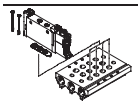
Solenoid valves VUVG-L and VUVG-S, in-line valves

FESTO

Order code

VUVG	–		–	10	–		–			–		–		–				L	–	

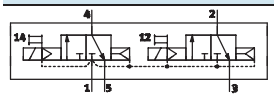
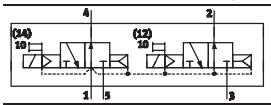
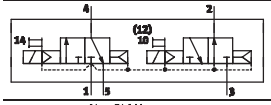
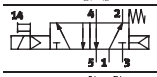
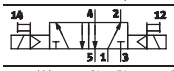
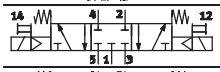
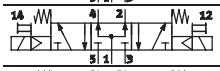
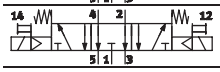
Valve design

 In-line, individual valve	L
 In-line, manifold valve incl. seal and screws	S

Width

10 mm	10

Valve functions

	T32C
	T32U
	T32H
	M52
	B52
	P53C
	P53U
	P53E

Reset method

Pneumatic spring for T32	A
Pneumatic/mechanical spring for M52	R
With B52 and P53	–

Pilot air supply

Internal	–

Manual override

	Non-detenting	H
	Covered	S
–	Detenting	T

Pneumatic connection

		Flow rate [l/min][4]
M5	Thread M5	220
Q3	Push-in connector 3 mm/M5	100
Q4	Push-in connector 4 mm/M5	200
Q6	Push-in connector 6 mm/M5	220
M7	Thread M7	380
Q4H	Push-in connector 4 mm/M7	220
Q6H	Push-in connector 6 mm/M7	330

Exhausting with VUVG-L

QN	QS if QS[3]
U	Silencer
–	M5 or M7

Operating voltage

1	24 V DC
5	12 V DC
4	5 V DC

Connecting cable

W1...4[1]	Not sheathed	

Indicator

L	LED

Protective circuit / Output [W]

–	Without holding current reduction	1
R[2]	With holding current reduction	1 to 0.35

Electric sub-base

H2	Port pattern H, horizontal plug	
H3	Port pattern H, vertical plug	
P3	Without electric sub-base	

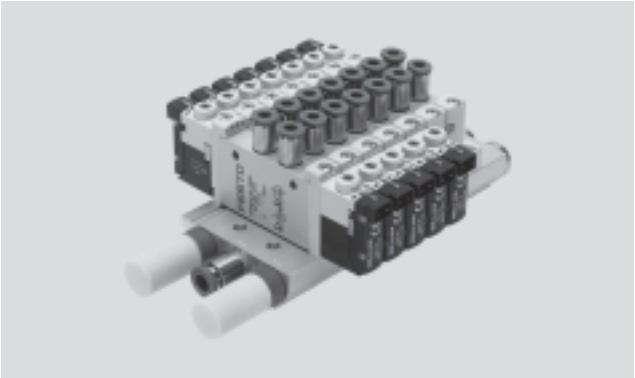
1) W1 = 0.5 m, W2 = 1 m, W3 = 2.5 m, W4 = 5 m.
2) At 24 V DC.
3) If Q... is chosen for the pneumatic connection, this also applies to the exhaust ports 3 and 5.
4) Flow rate applies to 5/2-way individual valve.

Solenoid valves VUVG-S, in-line valves

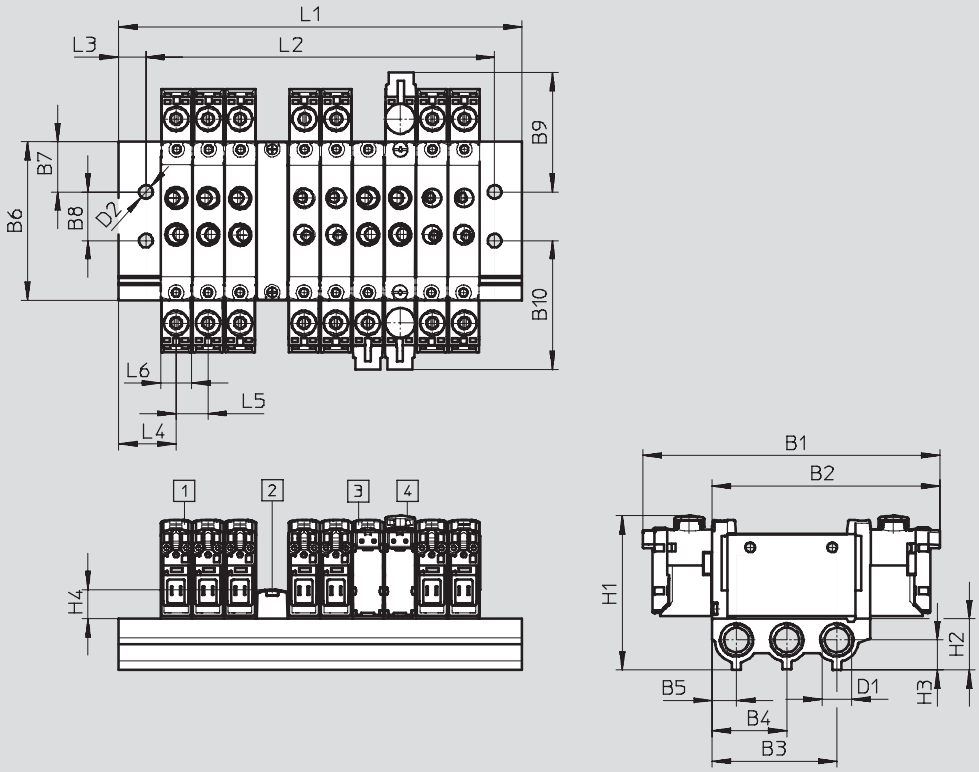
Manifold assembly

FESTO

In-line valves for manifold assembly



Dimensions Download CAD Data ➔ **www.festo.com/us/cad**



1 Solenoid valve, vertical electrical connection

2 Blanking plate VABB-L1-10-S

3 Solenoid valve, horizontal electrical connection

4 Cover cap for “covered” manual override

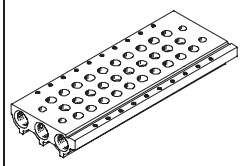
Type												
VUVG-S10 -...-M5 ...	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1	D2
	97.5	74.8	41	24.5	8	52	16.5	16	39.2	42.3	G1⁄8	4.5
	H1	H2	H3	L3	L4	L5	L6					
	50.6	16.8	9	9	19	10.5	10.25					

Valve positions	2	3	4	5	6	7	8	9	10	12	14	16
L1 [mm]	48.5	59	69.5	80	90.5	101	111.5	122	132.5	153.5	174.5	195.5
L2 [mm]	30.5	41	51.5	62	72.5	83	93.5	104	114.5	135.5	156.5	177.5
VABM weight [g]	66	81	96	111	126	141	156	171	186	216	246	276

Solenoid valves VUVG-S, in-line valves

Ordering data

FESTO

Technical data – Manifold rails							
	Port	CRC	Material[2]	Operating pressure	Max. tightening torque for assembly [Nm]		
	1, 3, 5			[bar]	Valve	H-rail	Wall
	G⅛	2[1]	Wrought aluminium alloy	–0.9 ... 10	0.45	1.5	3

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

Order code – Manifold rails

VABM	–	L1	–	10	S	–	G18	–	

Manifold assembly components	
Manifold rail	**VABM**

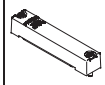
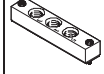
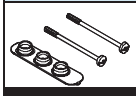
Valve series	
VUVG	**L1**

Valve width	
10 mm	**10**

Manifold rail with ports 1, 3, 5	
For M5 and M7 in-line valves	**S**

Number of valve positions	
	2 to 10, 12, 14 and 16

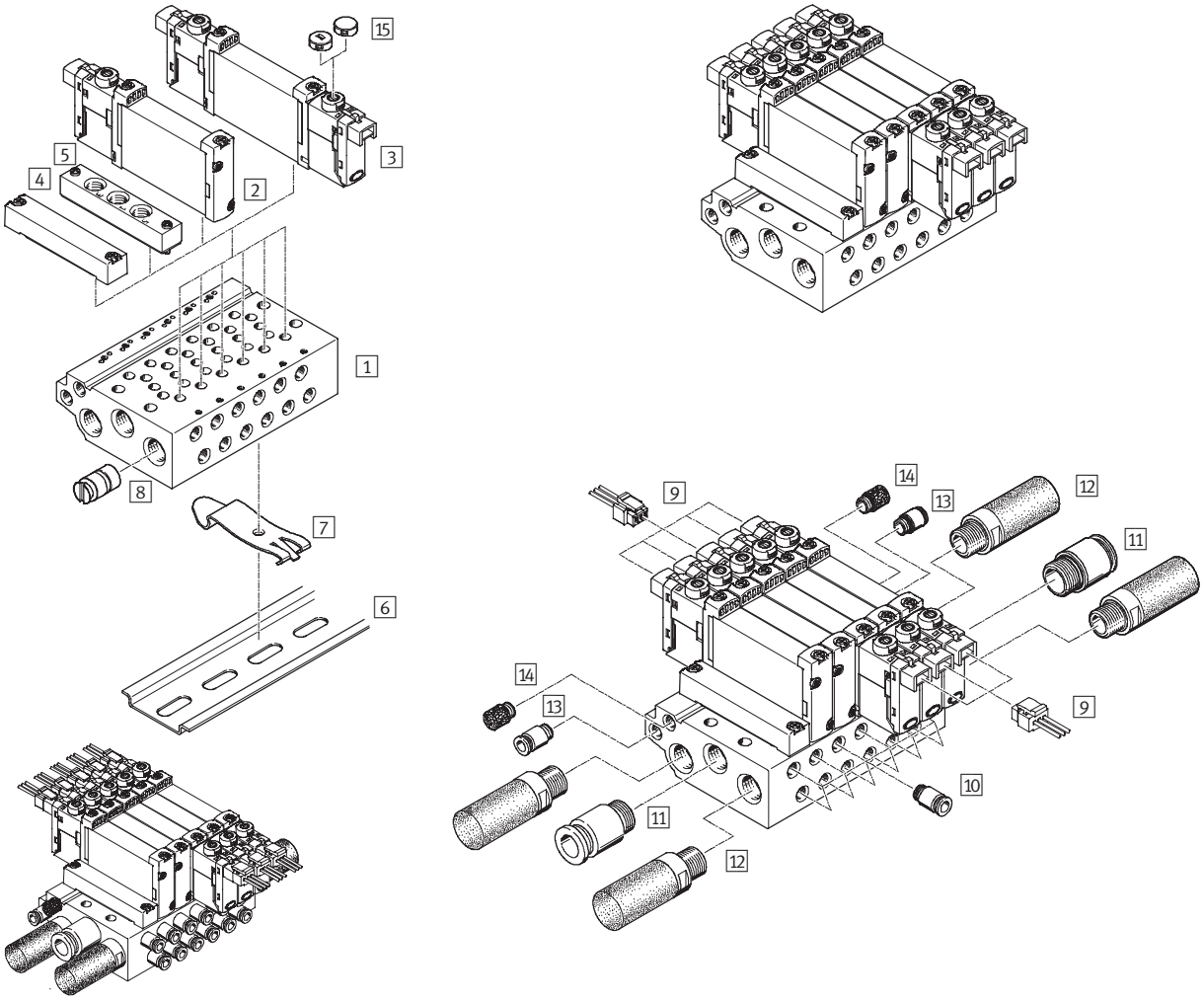
Ports 1, 3 and 5	
G18	G⅛

Ordering data – Accessories			
			Type
Blanking plate			Technical data ➔ Internet: vabb
	For manifold rail M5/M7, in-line valves	Incl. screws and seal	**VABB-L1-10-S**
Blanking plug			Technical data ➔ Internet: vabd
	For manifold rail M5/M7, in-line valves	Separator for pressure zones	**VABD-8-B**
Supply plate			Technical data ➔ Internet: vabf
	For manifold rail M5, in-line valves	Incl. screws and seal	**VABF-L1-10-P3A4-M5**
	For manifold rail M7, in-line valves		**VABF-L1-10-P3A4-M7**
Seals for in-line valves			Technical data ➔ Internet: vabd
	M5	10 seals and 20 screws	**VABD-L1-10X-S-M5**
	M7		**VABD-L1-10X-S-M7**

Solenoid valves VUVG-B, sub-base valves

System overview

Manifold assembly



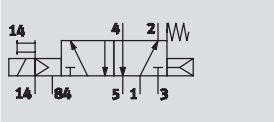
Manifold assembly and accessories			
	Type	Brief description	→ Page/Internet
1 Manifold rail	VABM-L1-10 ...-G18- ...	For 2 to 10, 12, 14 and 16 valve positions	18
2 Solenoid valve	VUVG- ...	Sub-base valve, 5/2-way single solenoid	15
3 Solenoid valve	VUVG- ...	Sub-base valve, 2x3/2-way, 5/2-way double solenoid and 5/3-way single solenoid	15
4 Blanking plate	VABB-L1-10-S	For covering an unused valve position	18
5 Supply plate	VABF-L1-10-P3A4- ...	For air supply 1 and outlet port 3 and 5	18
6 H-rail	NRH-35-2000	For attaching the valve manifold	21
7 H-rail mounting	VAME-T-M4	2 pieces for mounting on the manifold rail	21
8 Blanking plug	VABD- ...	Separator for pressure zones	18
9 Plug socket with cable	NEBV-H1G2-KN-...-LE2	For electric sub-base H2 and H3	21
10 Push-in fitting	QS...	Quick push-in fitting for outlet port 2 and 4	quick star
11 Push-in fitting	QS...	Quick push-in fitting for air supply 1	quick star
12 Silencer	U...	For outlet port 3 and 5	21
13 Push-in fitting	QS...	Quick push-in fitting for pilot air supply 12/14	quick star
14 Silencer	U...	Silencer for pilot air exhaust 82/84	quick star
15 Cover cap	VMPA-HB...-B	For manual override	21

Solenoid valves VUVG-B, sub-base valves

Technical data

FESTO

Function
2x3/2C, 2x3/2U, 2x3/2H
5/2-way single solenoid
5/2-way double solenoid
5/3C, 5/3U, 5/3E

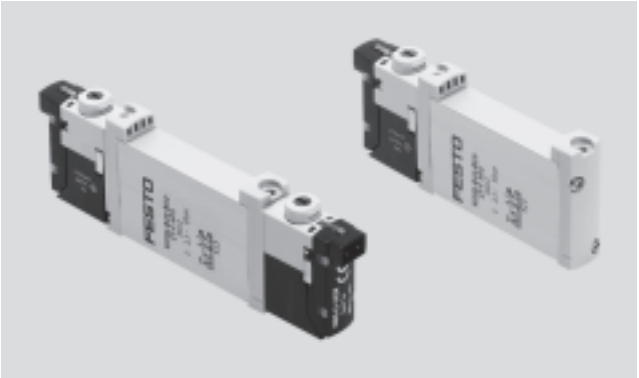


E.g. 5/2-way valve with internal pilot air supply and combined reset with mechanical plus pneumatic spring

Width 10 mm

Flow rate
160 ... 270 l/min

Voltage
5, 12 and 24 V DC



General technical data									
Valve function			2x3/2-way			5/2-way		5/3-way		
Normal position			C[1]	U[2]	H[4]	–	–	C[1]	U[2]	E[3]
Memory stability			Monostable				Bistable	Monostable		
Pneumatic spring reset method			Yes			Yes[5]	–	No		
Mechanical spring reset method			No			Yes[5]	–	Yes		
Design			Piston spool valve							
Sealing principle			Soft							
Actuation type			Electric							
Type of control			Piloted							
Pilot air supply			Internal or external							
Exhaust function			Flow control							
Manual override			Choice of non-detenting, detenting or covered							
Type of mounting			On manifold rail							
Mounting position			Any							
Nominal size		[mm]	2.7			3.2				
Standard nominal flow rate		[l/min]	160			270		250		
Flow rate on manifold rail M5		[l/min]	150			210		200		
Flow rate on manifold rail M7		[l/min]	160			270		250		
Switching time on/off		[ms]	6/16			7/19	–	10/30		
Changeover time		[ms]	–				7	16		
Width		[mm]	10							
Port	1, 3, 5		G⅛ in manifold rail							
	2, 4		M5 or M7 in manifold rail							
	12/14, 82/84		M5 in manifold rail							
Product weight		[g]	55			45	55			
Corrosion resistance class		CRC	2[6]							

1) C = Normally closed.
2) U = Normally open.
3) E = Normally exhausted.
4) H = 2x3/2-way valve in one housing with 1x normally closed and 1x normally open.
5) Combined reset method.
6) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Solenoid valves VUVG-B, sub-base valves

Technical data

Operating and environmental conditions						
Valve function			2x3/2-way	5/2-way single solenoid	5/2-way double solenoid	5/3-way
Operating medium			Filtered compressed air, grade of filtration 40 µm, lubricated or unlubricated			
Operating pressure	Internal pilot air supply	[bar]	1.5 ... 8	2.5 ... 8	1.5 ... 8	3 ... 8
	External pilot air supply	[bar]	0.9 ... 10			
Pilot pressure		[bar]	1.5 ... 8	2.5 ... 8	1.5 ... 8	3 ... 8
Ambient temperature		[°C]	–5 ... +50, –5 ... +60 with holding current reduction			
Temperature of medium		[°C]	–5 ... +50, –5 ... +60 with holding current reduction			

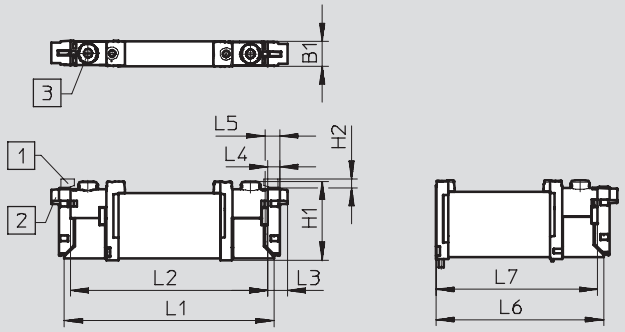
1) Minimum pilot pressure 50% of the operating pressure.

Electrical data		
Electrical connection		Via electric sub-base
Operating voltage	[V DC]	5, 12 and 24 ±10%
Output	[W]	1, reduced to 0.35 via holding current reduction
Duty cycle	[%]	100
Protection class to EN 60529		IP40 (with plug socket)

Information on materials	
Housing	Wrought aluminium alloy
Seals	HNBR, NBR
Note on materials	RoHS-compliant

Dimensions Download CAD Data ➔ **www.festo.com/us/cad**

2x3/2-way, 5/2-way and 5/3-way valves



1 Vertical electrical connection 2 Horizontal electrical connection 3 Manual override

Type											
VUVG-B10 -...-F ...	B1	H1	H2	L1	L2	L3	L4	L5	L6	L7	
	10	32.5	3.6	86.5	81.5	8	4.85	6.15	69.2	66.7	

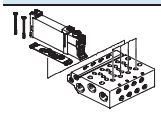
Solenoid valves VUVG-B, sub-base valve

FESTO

Order code

VUVG	–	B	–	10	–		–		Z		–				L	–	

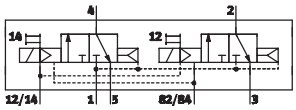
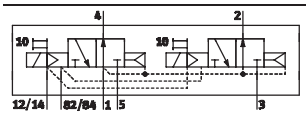
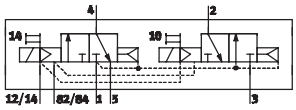
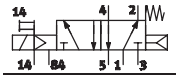
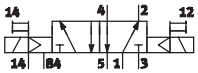
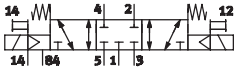
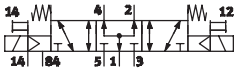
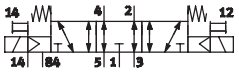
Valve design

 Manifold block, manifold valve incl. seal and screws	B

Width

10 mm	10

Valve functions

	T32C
	T32U
	T32H
	M52
	B52
	P53C
	P53U
	P53E

Reset method

Pneumatic spring for T32	A
Pneumatic/mechanical spring for M52	R
With B52 and P53	–

Pilot air supply

External	Z

Manual override

	Non-detenting	H
	Covered	S
–	Detenting	T

Connecting cable

W1...4[1]	Not sheathed	

Indicator

L	LED

Protective circuit

		Output [W]
–	Without holding current reduction	1
R[2]	With holding current reduction	1 to 0.35

Electric sub-base

H2	Port pattern H, horizontal plug	
H3	Port pattern H, vertical plug	
P3	Without electric sub-base	

Operating voltage

1	24 V DC
5	12 V DC
4	5 V DC

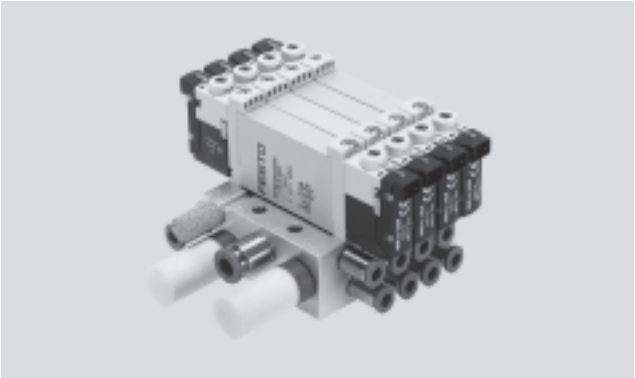
1) W1 = 0.5 m, W2 = 1 m, W3 = 2.5 m, W4 = 5 m.
2) At 24 V DC.

Solenoid valves VUVG-B, sub-base valves

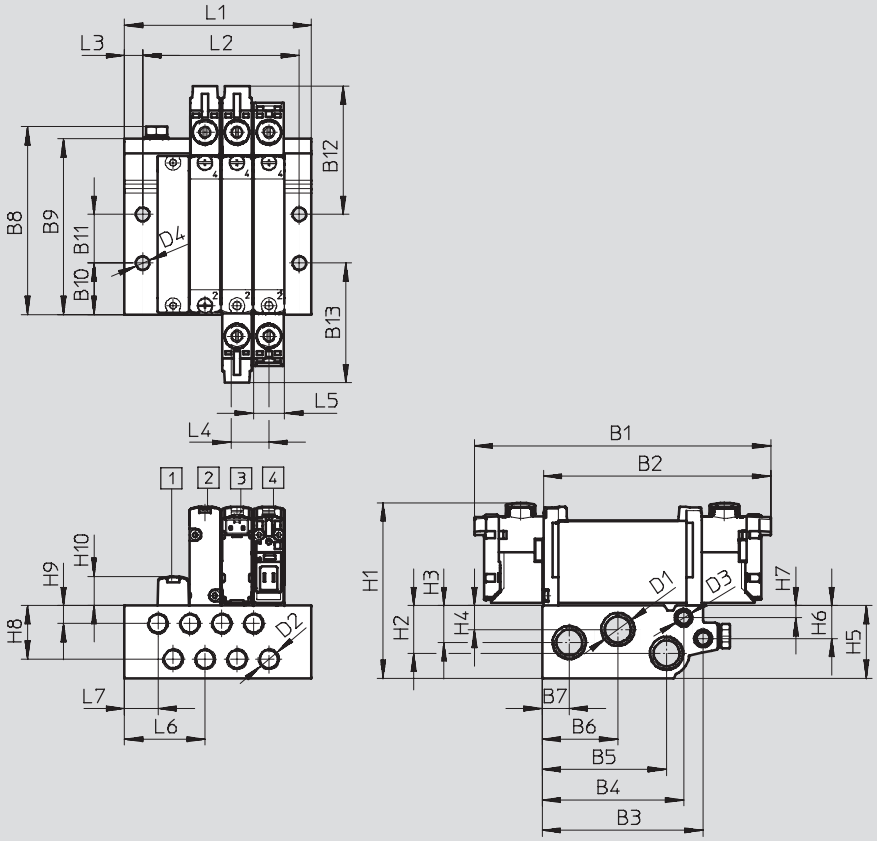
Manifold assembly

FESTO

Sub-base valve
for manifold assembly



Dimensions Download CAD Data ➔ **www.festo.com/us/cad**



1 Blanking plate
VABB-L1-10-W

2 Solenoid valve
VUVG-B10-M52-... -1H2

3 Solenoid valve
VUVG-B10-P53C-... -1H2

4 Solenoid valve
VUVG-B10-T32C-... -1H3

Type												
VUVG-B10 -...-F- ...	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
	97.5	74.8	52.9	46.5	40.9	24.9	8.9	62	57.7	16.9	16	42.2
	B13	D1	D2	D3	D4	H1	H2	H3	H4	H5	H6	H7
	39.3	G⅛	M5/M7	M5	4.5	56.4	15.7	12.17	7.87	23.9	10.8	4
	H8	H9	H10	L3	L4	L5	L6	L7				
	17.6	5.9	10	4	10.5	10.25	16	11				

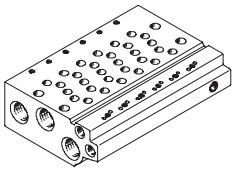
Valve positions	2	3	4	5	6	7	8	9	10	12	14	16
L1 [mm]	40.5	51	61.5	72	82.5	93	103.5	114	122.5	145.5	166.5	187.5
L2 [mm]	30.5	41	51.5	62	72.5	83	93.5	104	114.5	135.5	156.5	177.5
VABM weight [g]	107	135	163	191	219	247	275	303	331	387	415	471

Solenoid valves VUVG-B, sub-base valves

Ordering data

FESTO

Technical data – Manifold rails

	Port			CRC	Material[2]	Operating pressure	Max. tightening torque for assembly [Nm]		
	2, 4	1, 3, 5	12/14, 82/84			[bar]	Valve	H-rail	Wall
	M5 or M7	G1⁄8	M5	2[1]	Wrought aluminium alloy	–0.9 ... 10	0.45	1.5	3

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

Order code – Manifold rails M5 and M7

VABM	–	L1	–	10		–	G18	–	

Manifold assembly components	
Manifold rail	**VABM**

Valve series	
VUVG	**L1**

Valve width	
10 mm	**10**

Rail with ports 1, 2, 3, 4, 5, 12/14, 82/84	
Port 2 and 4 in M5	**W**
Port 2 and 4 in M7	**HW**

Number of valve positions	
	2 to 10, 12, 14 and 16

Ports 1, 3 and 5	
G18	G1⁄8

Ordering data – Accessories

			Type
Blanking plate			Technical data ➔ Internet: vabb
	For manifold rail M5/M7, sub-base valves	Incl. screws and seal	**VABB-L1-10-W**
Blanking plug			Technical data ➔ Internet: vabd
	For manifold rail M5 and M7, sub-base valves	Separator for pressure zones	**VABD-6-B**
Supply plate			Technical data ➔ Internet: vabf
	For manifold rail M5	Incl. screws and seal	**VABF-L1-10-P3A4-M5**
	For manifold rail M7		**VABF-L1-10-P3A4-M7**
Seals for sub-base valves			Technical data ➔ Internet: vabd
	M5 and M7	10 seals and 20 screws	**VABD-L1-10B-S-M5**

Solenoid valves VUVG

Ordering data – Electric sub-bases

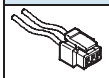
FESTO

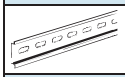
Ordering data – Electric sub-base									
Design	Plug	Additional functions	Ambient temperature [°C]	Code	Output		Voltage		Type
					[W]	[VA]	[V DC]	[V AC]	
	NEBV-H1 ...	LED, spark arresting, bipolar	–5 ... +50	H2	1	–	12, 24	–	**VAVE-L1-1VH2-LP**
		LED, spark arresting, holding current reduction	–5 ... +60	H2R	1/0.35	–	24	–	**VAVE-L1-1H2-LR**
		LED, spark arresting, bipolar	–5 ... +50	H3	1	–	12, 24	–	**VAVE-L1-1VH3-LP**
		LED, spark arresting, holding current reduction	–5 ... +60	H3R	1/0.35	–	24	–	**VAVE-L1-1H3-LR**

Solenoid valves VUVG

Accessories

FESTO

Ordering data			
	Voltage	Cable length [m]	Type
Plug socket with cable, not sheathed, open end			Technical data ➔ Internet: nebv
	5, 12 and 24 V DC	0.5	**NEBV-H1G2-KN-0.5-LE2**
		1	**NEBV-H1G2-KN-1-LE2**
		2.5	**NEBV-H1G2-KN-2.5-LE2**
		5	**NEBV-H1G2-KN-5-LE2**

Ordering data			
	Description		Type
Blanking plug			Technical data ➔ Internet: b
	For manifold rail		**B-M5**
			B-M7
			B-1/8
Fittings			Technical data ➔ Internet: qsm
	For tubing Ø 3 mm	10 pieces	**QSM-M5-3-I**
	For tubing Ø 4 mm		**QSM-M5-4-I**
	For tubing Ø 6 mm		**QSM-M5-6-I**
	For tubing Ø 4 mm		**QSM-M7-4-I**
	For tubing Ø 6 mm		**QSM-M7-6-I**
	For tubing Ø 3 mm	100 pieces	**QSM-M5-3-I-R100**
	For tubing Ø 4 mm		**QSM-M5-4-I-R100**
	For tubing Ø 6 mm		**QSM-M5-6-I-R100**
	For tubing Ø 6 mm		**QSM-M7-6-I-R100**
Silencer			Technical data ➔ Internet: uc
	For thread M5		**U-M5**
	For thread M7		**UC-M7**
	For thread G1/8		**UC-1/8**
H-rail			Technical data ➔ Internet: nrh
	–	2 m	**NRH-35-2000**
H-rail mounting			Technical data ➔ Internet: vame
	–	2 pieces	**VAME-T-M4**
Covers for manual override			Technical data ➔ Internet: vmpa
	Covered		**VMPA-HBV-B**
	Non-detenting		**VMPA-HBT-B**

Solenoid valves VUVG

Ordering Data – Push-in Fittings

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Ordering Data – Push-in Fittings QS/QSM for Metric Tubing								Technical Data ➔ www.festo.com/catalog/QS
	For tubing O.D. [mm]	M5[1]		M7[1]		R1/8[1]	
		Part No.	Type	Part No.	Type	Part No.	Type
With external hex							
	3	**153302**	**QSM-M5-3**	–		–	
	4	**153304**	**QSM-M5-4**	–		**153001**	**QS-⅛-4**
	6	**153306**	**QSM-M5-6**	–		**153002**	**QS-⅛-6**
	8	–		–		**153004**	**QS-⅛-8**
	10	–		–		**190643**	**QS-⅛-10**
With internal hex							
	3	**153313**	**QSM-M5-3-I**	–		–	
	4	**153315**	**QSM-M5-4-I**	**153319**	**QSM-M7-4-I**	**153012**	**QS-⅛-4-I**
	6	**153317**	**QSM-M5-6-I**	**153321**	**QSM-M7-6-I**	**153013**	**QS-⅛-6-I**
	8	–		–		**153015**	**QS-⅛-8-I**
	10	–		–		**190647**	**QS-⅛-10-I**

Ordering Data – Push-in Fittings QS/QSM for Inch-sized Tubing								Technical Data ➔ www.festo.com/catalog/QS
	For tubing O.D. [in]	M5		M7		R1/8	
		Part No.	Type	Part No.	Type	Part No.	Type
With external hex							
	1/8	**533209**	**QS-H-M5-1/8-U-M[1]**	–		**533213**	**QS-H-1/8-1/8-U-M**
	5/32	**533210**	**QS-H-M5-5/32-U-M**	–		**533214**	**QS-H-1/8-5/32-U-M**
	3/16	**533211**	**QS-H-M5-3/16-U-M**	–		**533215**	**QS-H-1/8-3/16-U-M**
	1/4	**533212**	**QS-H-M5-1/4-U-M**	–		**533216**	**QS-H-1/8-1/4-U-M**
	5/16	**533217**	**QS-H-1/8-5/16-U-M**	–		**533217**	**QS-H-1/8-5/16-U-M**
With internal hex							
	1/8	**183749**	**QSM-M5-1/8-I-U-M**	**183738**	**QSM-M7-1/8-I-U-M**	–	
	5/32	**130593**	**QSM-M5-5/32-I-U-M**	–		–	
	3/16	**183750**	**QSM-M5-3/16-I-U-M**	**183739**	**QSM-M7-3/16-I-U-M**	–	
	1/4	**130591**	**QSM-M5-1/4-I-U-M**	**183740**	**QSM-M7-1/4-I-U-M**	**183741**	**QS-1/8-1/4-I-U-M**
	5/16	–		–		**183742**	**QS-1/8-5/16-I-U-M**

1) Scope of delivery 10 pieces

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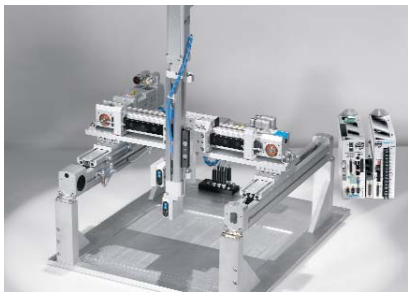

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