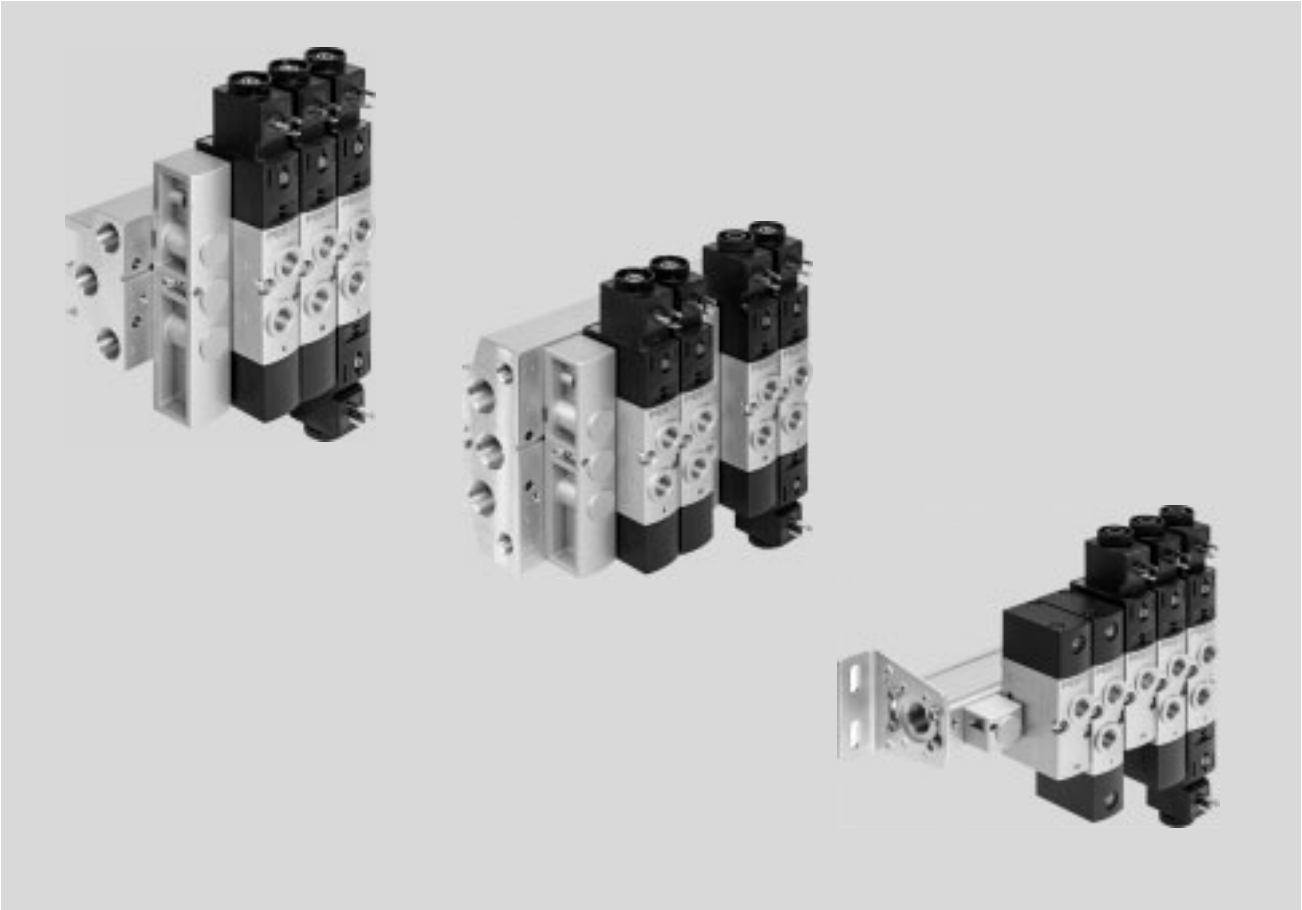
Pneumatic valves VUWS/valve manifold VTUS

New

Pneumatic valves VUWS/valve manifold VTUS

Key features – Pneumatics



Innovative

- A reliable, robust valve with a long service life
- Flow rate up to 1300 l/min
- Low-cost universal valve with no performance limitations
- Wide range of valve functions
- Multiple widths

Versatile

- In-line valves can be used as individual valves or manifold valves
- Variable pressure zones
- Wide range of mounting options

Reliable

- Ergonomic, reliable operation
- Durable thanks to tried and tested piston spools
- Reliable servicing thanks to valves that can be replaced quickly and easily

Easy to install

- Preassembled units on strips
- Individual valves assembled ready for installation
- Supply manifolds for mounting on one or both sides
- Secure mounting on wall or H-rail

Valve manifold selection

Configurator

The appropriate valve manifold VTUS can be chosen quickly and easily using the online catalogue. This includes a convenient configurator, making it much easier to order the right product.

The valve manifold is fully assembled according to your order specification and individually checked. This reduces assembly and installation time to a minimum.

Ordering system for valve manifold VTUS

➔ Internet: vtus

2D/3D CAD data

The CAD data for a configured valve manifold can be retrieved online using the configurator.

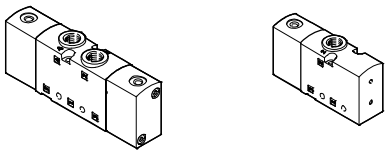
New

Pneumatic valves VUWS/valve manifold VTUS

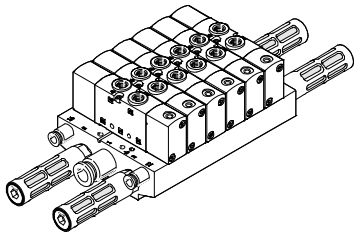
Key features

Pneumatic valves VUWS

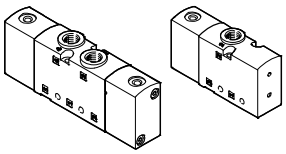
In-line valve VUWS as individual valve



Valve manifold VTUS



Equipment options



- Width 20 (21 mm)
- Width 25 (26.5 mm)
- 3/2, 5/2 and 5/3-way valves
- In-line valves

All valves are equipped with a piston spool and patented sealing system to facilitate efficient sealing, a broad pressure range and a long service life. Pneumatic valves VUWS have a sturdy design that enables them to be used in harsh environments.

Pneumatic valves VUWS are extremely well suited for controlling cylinders or compressed air networks for easy clamping and locking processes in semi-automatic assembly and manufacturing.

Valve functions

3/2-way valve, normal position open, monostable:
- External pneumatic spring connection
- Reset via pneumatic/mechanical spring
- Direction of flow reversible in the case of external pneumatic spring connection
- Dual-pressure operation possible
- Bistable operation possible with external pneumatic spring connection

3/2-way valve, normal position closed, monostable:
- External pneumatic spring connection
- Reset via pneumatic/mechanical spring
- Direction of flow reversible in the case of external pneumatic spring connection
- Dual-pressure operation possible
- Bistable operation possible with external pneumatic spring connection

5/2-way valve, monostable:
- External pneumatic spring connection
- Reset via pneumatic/mechanical spring
- Direction of flow reversible in the case of external pneumatic spring connection

5/2-way valve, bistable:
- Direction of flow reversible

5/3-way valve, mid-position exhausted, pressurised or closed:
- External pneumatic spring connection
- Direction of flow reversible in the case of external pneumatic spring connection
- Reset via mechanical spring

Key features

- A maximum of 16 valve positions can be configured in the standard version
- A maximum of 12 valve positions can be configured in the compact version
- Valve positions 2 ... 10 can be configured in increments of 1, valve positions 10 ... 16 in increments of 2
- Manifold block with a maximum of 10 valve positions
- Extension module with 2 valve positions
- Supply manifold with a maximum of 10 valve positions
- Creation of pressure zones (maximum 9 pressure zones in the case of manifold assemblies with 16 valve positions)

Design

Valve replacement

Each valve is attached to the manifold block using two screws. The appropriate seal is mounted on the valve.

This means that the valves can be easily replaced.

Extension

Valve positions covered with blanking plates can be replaced with valves at a later date.
The dimensions, mounting points and existing pneumatic installations remain unchanged.
For the standard manifold block, extension modules with 2 valve positions are available.

New

Pneumatic valves VUWS

Order code – Pneumatic valves

VUWS	–	L		–		–		–	

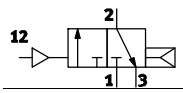
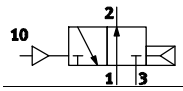
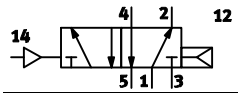
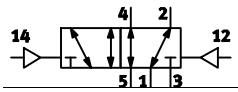
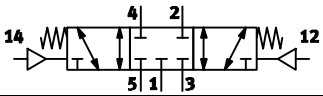
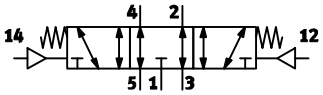
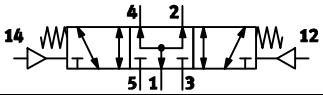
Valve design

In-line, individual valve	**L**

Valve width

21 mm	**20**
26.5 mm	**25**

Valve functions

	**M32C**[1]
	**M32U**[1]
	**M52**[1]
	**B52**
	**P53C**
	**P53U**
	**P53E**

Exhaust

–	Without fitting
QN	With fitting
U1	Silencer with metal housing
U3	Silencer with polymer housing

Pneumatic connection

G18	Thread G 1/8
G14	Thread G 1/4
Q4	Push-in connector 4 mm
Q6	Push-in connector 6 mm
Q8	Push-in connector 8 mm
Q10	Push-in connector 10 mm

Type of reset

–	None (for bistable valves)
A	Pneumatic spring
E	Pneumatic spring, external
M	Mechanical spring

1) The circuit diagram is a symbolic representation. In the case of M32C, for example, the order code is possible only in combination with -A, -E, -M.

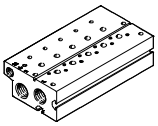
New

Pneumatic valves VUWS/valve manifold VTUS

Key features

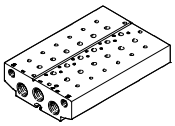
Standard manifold block

For 3/2-way valves



- Connection:
  width 20: G3/8
  width 25: G1/2
- For valves with external pneumatic spring connection
- Maximum 10 valve positions

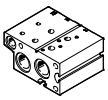
For 5/2- and 5/3-way valves



- Connection:
  width 20: G3/8
  width 25: G1/2
- For valves with external pneumatic spring connection
- Maximum 10 valve positions

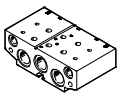
Extension for standard manifold block

For 3/2-way valves



- Connection:
  width 20: G3/8
  width 25: G1/2
- Maximum two valve positions

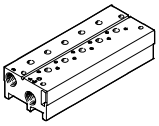
For 5/2- and 5/3-way valves



- Connection:
  width 20: G3/8
  width 25: G1/2
- Maximum two valve positions

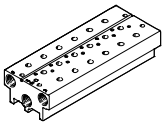
Compact manifold block

For 3/2-way valves



- Connection:
  width 20: G1/4
  width 25: G3/8
- Maximum 10 valve positions

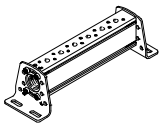
For 5/2- and 5/3-way valves



- Connection:
  width 20: G1/4
  width 25: G3/8
- Maximum 10 valve positions

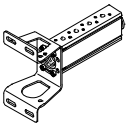
Supply manifold

Mounting on both sides



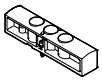
- Connection:
  width 20: G3/8
  width 25: G1/2
- Maximum 10 valve positions

Mounting on one side



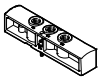
- Connection:
  width 20: G3/8
  width 25: G1/2
- Maximum 4 valve positions

Blanking plate for unused valve position



For covering unused valve positions

Supply plate



For additional air supply and exhaust via a valve position

Separator for pressure zones

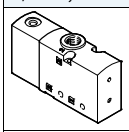
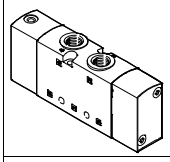
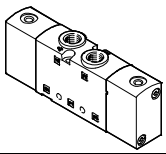
For creating pressure zones (maximum 9 pressure zones permitted)

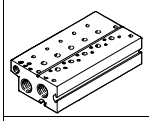
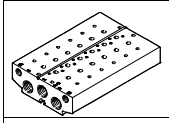
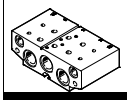
Note

A filter must be installed upstream of valves operated in vacuum mode. This prevents any foreign matter in the intake air getting into the valve (e.g. when operating a suction cup).

Pneumatic valves VUWS/valve manifold VTUS

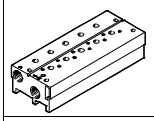
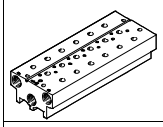
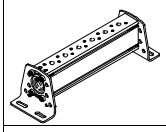
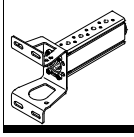
Product range overview

Design	Width	Working port	Order code for valves and flow rate [l/min]							➔ Page/ Internet
			M32C	M32U	M52	B52	P53C	P53E	P53U	
3/2-way valve										
	20	G1/8	700	700	–	–	–	–	–	32
	25	G1/4	1000	1000	–	–	–	–	–	39
5/2-way valve										
	20	G1/8	–	–	700	700	–	–	–	32
	25	G1/4	–	–	1300	1300	–	–	–	39
5/3-way valve										
	20	G1/8	–	–	–	–	700	600	600	32
	25	G1/4	–	–	–	–	1000	1000	1000	39

Design	Width	Description		➔ Page/ Internet
Manifold block for 3/2-way valves, standard				
	20	VABM-B10-20E-G38- ... -P3	Connection G3/8	51
	25	VABM-B10-25E-G12- ... -P3	Connection G1/2	66
Manifold block extension module for 3/2-way valves, standard				
	20	VABM-B10-20EEE-G38- ... -P3	Connection G3/8	51
	25	VABM-B10-25EEE-G12-... -P3	Connection G1/2	66
Manifold block for 5/2- and 5/3-way valves, standard				
	20	VABM-B10-20E-G38- ...	Connection G3/8	51
	25	VABM-B10-25E-G12- ...	Connection G1/2	66
Manifold block extension module for 5/2- and 5/3-way valves, standard				
	20	VABM-B10-20EEE-G38- ...	Connection G3/8	51
	25	VABM-B10-25EEE-G12- ...	Connection G1/2	66

Pneumatic valves VUWS/valve manifold VTUS

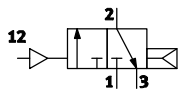
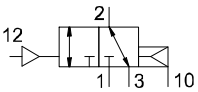
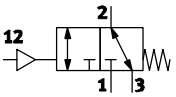
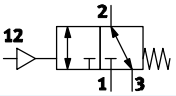
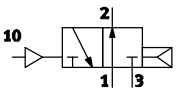
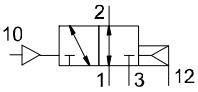
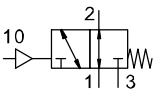
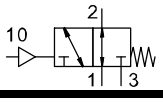
Product range overview

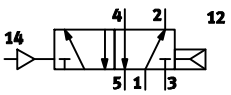
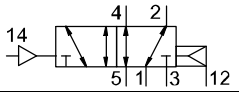
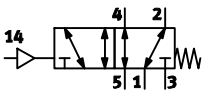
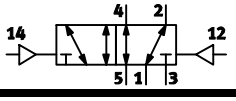
Design	Width	Description		➔ Page/ Internet
Manifold block for 3/2-way valves, compact				
	20	VABM-B10-20S-G14- ...-P3	Connection G1/4	51
	25	VABM-B10-25S-G38- ...-P3	Connection G3/8	66
Manifold block for 5/2- and 5/3-way valves, compact				
	20	VABM-B10-20S-G14- ...	Connection G1/4	51
	25	VABM-B10-25S-G38- ...	Connection G3/8	66
Supply manifold, for mounting on both sides				
	20	VABM-B10-20-G38- ... -P53	Connection G3/8	52
	25	VABM-B10-25-G12- ... -P53	Connection G1/2	67
Supply manifold, for mounting on one side				
	20	VABM-B10-20-G38- ... -P53-E	Connection G3/8	52
	25	VABM-B10-25-G12- ... -P53-E	Connection G1/2	67

Pneumatic valves VUWS

Valve function

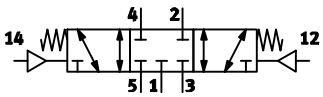
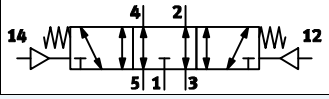
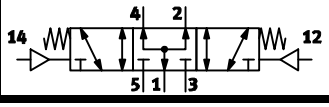
FESTO

3/2-way valves			
Order code for valves	Circuit symbol	Width	Description
3/2-way valves, NC, monostable			
M32C-A		20 25	• Normally closed • Internal pneumatic spring supply • Direction of flow: not reversible • Reset: pneumatic spring
M32C-E		20 25	• Normally closed • External pneumatic spring supply • Direction of flow: reversible • Reset: pneumatic spring
M32C-M		20	• Normally closed • Direction of flow: reversible • Reset: mechanical spring, supported internally by pneumatic spring
M32C-M		25	• Normally closed • Direction of flow: reversible • Reset: mechanical spring
3/2-way valve, NO, monostable			
M32U-A		20 25	• Normally open • Internal pneumatic spring supply • Direction of flow: not reversible • Reset: pneumatic spring
M32U-E		20 25	• Normally open • External pneumatic spring supply • Direction of flow: reversible • Reset: pneumatic spring
M32U-M		20	• Normally open • Direction of flow: reversible • Reset: mechanical spring, supported internally by pneumatic spring
M32U-M		25	• Normally open • Direction of flow: reversible • Reset: mechanical spring

5/2-way valves			
Order code for valves	Circuit symbol	Width	Description
5/2-way valve, monostable			
M52-A		20 25	• Internal pneumatic spring supply • Direction of flow: not reversible • Reset: pneumatic spring
M52-E		20 25	• External pneumatic spring supply • Direction of flow: reversible • Reset: pneumatic spring
M52-M		20 25	• Direction of flow: reversible • Reset: mechanical spring
5/2-way valve, bistable			
B52		20 25	• Direction of flow: reversible

Pneumatic valves VUWS

Valve function

5/3-way valves			
Order code for valves	Circuit symbol	Width	Description
5/3-way valve, mid-position closed			
P53C		20 25	• Direction of flow: reversible
5/3-way valve, mid-position exhausted			
P53E		20 25	• Direction of flow: reversible
5/3-way valve, mid-position pressurised			
P53U		20 25	• Direction of flow: reversible

Pneumatic valves VUWS

Technical data – Pneumatic valves, width 20

FESTO

Flow rate
Up to 700 l/min

Valve width
21 mm

General technical data								
Valve function		3/2		5/2		5/3		
Order code for valves		M32C	M32U	M52	B52	P53C	P53U	P53E
Valve width	[mm]	21						
Design		Piston spool valve						
Pneumatic spring supply		Internal or external (external: identified by E in type code)						
Type of pilot control		Direct						
Manual override (MO)		None						
Direction of flow		Reversible with restrictions (not reversible: identified by A in type code)						
Non-overlapping		Yes						
Sealing principle		Soft						
Type of mounting		Optionally via through-holes[1] or on manifold rail						
Standard nominal flow rate	[qnN]	700		700		700	600	600
Through-holes (nominal width)	[mm]	5.7		5.7		5.0	4.8	4.5
Product weight	[g]	145		178/190[2]	211	207	207	207
Actuation type		Pneumatic						
Mounting position		Any						
Exhaust air function		With flow control						
Venting hole		Not ducted						
Pneumatic connection 1, 2, 4, 3, 5		G1/8						
Pneumatic spring connection 12/14, 10		M5						

1) If several 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 placing spacer discs between them.
2) With external pneumatic spring: 190 g, with internal pneumatic spring or mechanical spring: 178 g

Technical data – 3/2-way valves					
Order code for valves		M32C		M32U	
Normal position		Closed		Open	
Stable position		Monostable		Monostable	
Reset method		Pneumatic spring	Mechanical spring (supported internally by pneumatic spring)	Pneumatic spring	Mechanical spring (supported internally by pneumatic spring)
Switching times	On	7	10	7	10
	Off	15	28	15	28
	Change-over	–	–	–	–

Pneumatic valves VUWS

Technical data – Pneumatic valves, width 20

FESTO

Technical data – 5/2-way valves				
Order code for valves		M52		B52
Stable position		Monostable		Bistable
Reset method		Pneumatic spring	Mechanical spring	–
Switching times	On	13	7	–
	Off	26	39	–
	Change-over	–	–	6

Technical data – 5/3-way valves				
Order code for valves		P53C	P53U	P53E
Stable position		Monostable		
Reset method		Mechanical spring		
Switching times	On	10	10	10
	Off	44	43	46
	Change-over	26	21	21

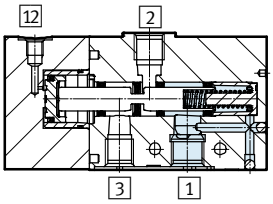
Operating and environmental conditions							
Valve function		M32 … A M32 … M	M32C-E M32U-E	M52-A	M52-E M52-M	B52	P53
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]					
Pilot medium		Compressed air to ISO 8573-1:2010 [7:4:4]					
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)					
Operating pressure	[bar]	2.5 … 10	–0.9 … +10	2.5 … 10	–0.9 … +10	–0.9 … +10	–0.9 … +10
Pilot pressure	[bar]	2.5 … 10	2.5 … 10	2.5 … 10	2.5 … 10	1.5 … 10	2.5 … 10
Ambient temperature	[°C]	–10 … +60					
Temperature of medium	[°C]	–10 … +60					
Corrosion resistance class CRC[1)]		2					

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Information on materials	
Housing	Die-cast aluminium
Piston spool	Wrought aluminium alloy (P53 types: high-alloy stainless steel)
Seals	HNBR, NBR
Note on materials	RoHS-compliant

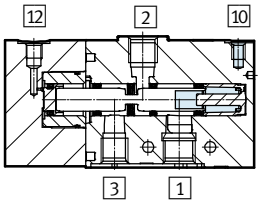
Special features of pneumatic 3/2-way valves

Reset: mechanical spring



Internal pneumatic spring
- Faster switch-off time
- In the case of dual-pressure operation, the higher pressure must always be present at port 1
- Pressure on port 2 not permitted

Reset: pneumatic spring



External pneumatic spring
- Can be used as a bistable valve
- Signal pressure depends on the pressure of the pneumatic spring
- No impairment of the switching function caused by vacuum
- Pressure is permitted on port 2

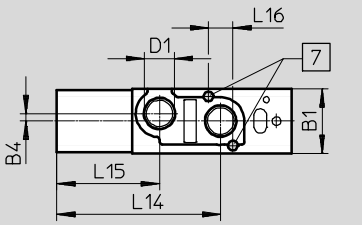
Pneumatic valves VUWS

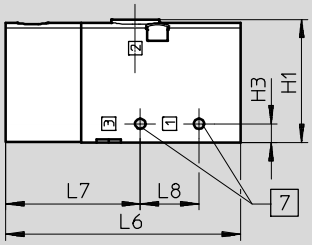
Technical data – Pneumatic valves, width 20

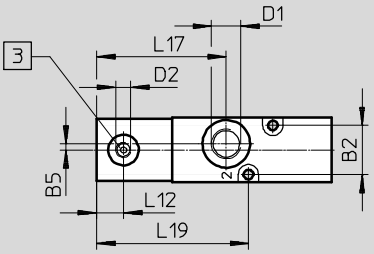
FESTO

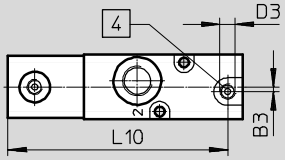
Dimensions Download CAD data ➔ **www.festo.com**

3/2-way valve, normally closed/open









3/2-way valve, normally closed/open, external pilot air

3 Port 10: for pneumatic spring (...-M32U-...)
Port 12: for pneumatic spring (...-M32C-...)

4 Port 10: for external pneumatic spring (...-M32U-E-...)
Port 12: for external pneumatic spring (...-M32C-E-...)

7 For mounting screw M3

Type	B1	B2	B3	B4	B5	D1	D2	D3	H1	H3
VUWS-L20-M32C-...-G18	21.1	16.1	–	2.5	2	G1/8	M5	–	40.4	6.2
VUWS-L20-M32U-...-G18			–					–		
VUWS-L20-M32C-E-...-G18			1.5					M5		
VUWS-L20-M32U-E-...-G18			1.5					M5		

Type	L6	L7	L8	L10	L12	L14	L15	L16	L17	L19
VUWS-L20-M32C-...-G18	77	44.1	19.2	–	8.8	53.7	33.7	8	42.5	49.7
VUWS-L20-M32U-...-G18				–						
VUWS-L20-M32C-E-...-G18				72						
VUWS-L20-M32U-E-...-G18				72						

Pneumatic valves VUWS

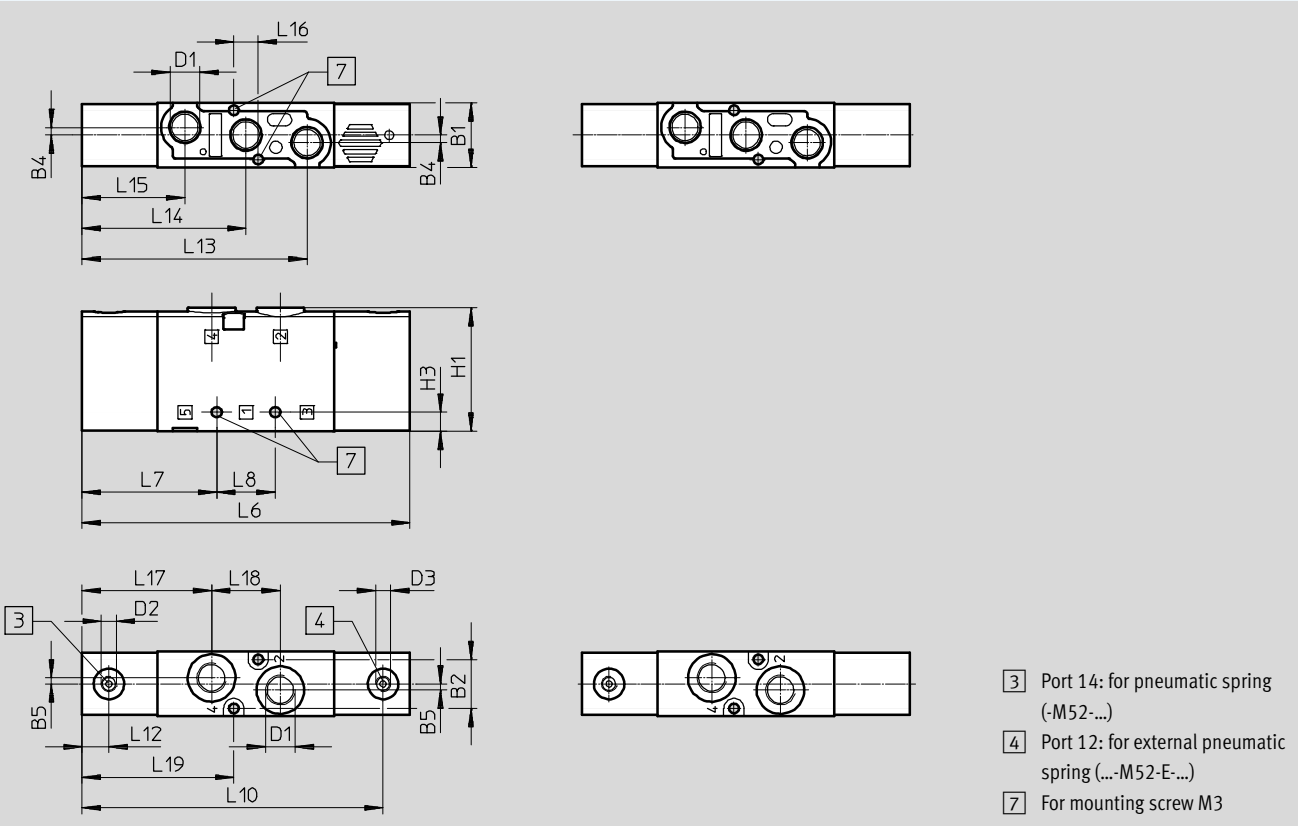
Technical data – Pneumatic valves, width 20

FESTO

Dimensions Download CAD data ➔ **www.festo.com**

5/2-way valve, monostable

5/2-way valve, monostable, external pilot air



3 Port 14: for pneumatic spring (-M52-...)

4 Port 12: for external pneumatic spring (...-M52-E-...)

7 For mounting screw M3

Type	B1	B2	B4	B5	D1	D2	D3	H1	H3
VUWS-L20-M52-...-G18	21.1	16.1	2.5	2	G1/8	M5	–	40.4	6.2
VUWS-L20-M52-E-G18					G1/8	M5	M5		

Type	L6	L7	L8	L10	L12	L13	L14	L15	L16	L17	L18	L19
VUWS-L20-M52-...-G18	107.4	44.1	19.2	–	8.8	73.7	53.7	33.7	8	42.5	22.5	49.7
VUWS-L20-M52-E-G18				98.6								

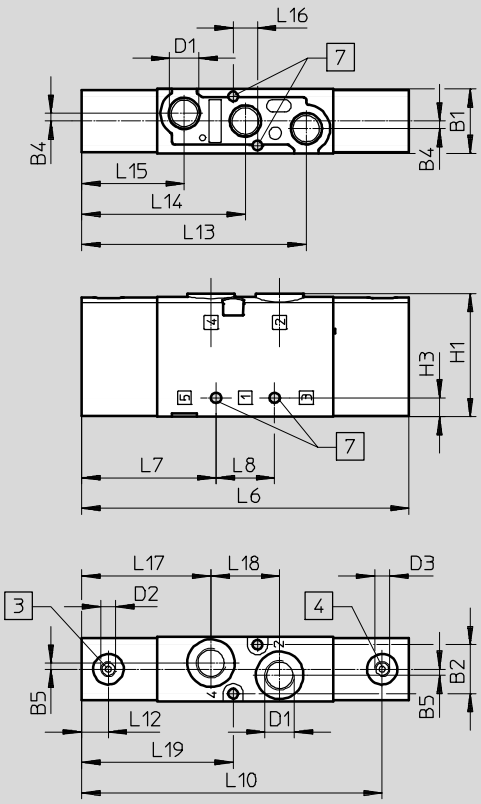
Pneumatic valves VUWS

Technical data – Pneumatic valves, width 20

FESTO

Dimensions Download CAD data ➔ **www.festo.com**

5/2-way valve, bistable, 5/3-way valve



4 Port 12: for external pneumatic spring
4 Port 12: for external pneumatic spring
7 For mounting screw M3

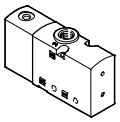
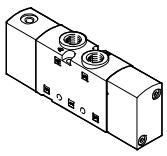
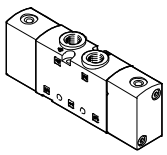
Type	B1	B2	B4	B5	D1	D2	D3	H1	H3
VUWS-L20-P53-...-M-G18	21.1	16.1	2.5	2	G1/8	M5	M5	40.4	6.2
VUWS-L20-B52-G18									

Type	L6	L7	L8	L10	L12	L13	L14	L15	L16	L17	L18	L19
VUWS-L20-P53-...-M-G18	107.4	44.1	19.2	98.6	8.8	73.7	53.7	33.7	8	42.5	22.5	49.7
VUWS-L20-B52-G18												

Pneumatic valves VUWS

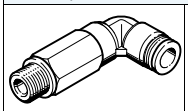
Ordering data – Pneumatic valves, width 20

FESTO

Ordering data – Pneumatic valves				
	Code	Valve function	Part No.	Type
Pneumatic valves				
	3/2-way valve, monostable, closed			
	M32C-A	Pneumatic spring return, internal pneumatic spring, direction of flow not reversible	**575669**	**VUWS-L20-M32C-A-G18**
	M32C-E	Pneumatic spring return, external pneumatic spring, direction of flow reversible	**575670**	**VUWS-L20-M32C-E-G18**
	M32C-M	Mechanical spring return, supported by internal pneumatic spring, direction of flow reversible	**575671**	**VUWS-L20-M32C-M-G18**
	3/2-way valve, monostable, open			
	M32U-A	Pneumatic spring return, internal pneumatic spring, direction of flow not reversible	**575672**	**VUWS-L20-M32U-A-G18**
	M32U-E	Pneumatic spring return, external pneumatic spring, direction of flow reversible	**575673**	**VUWS-L20-M32U-E-G18**
	M32U-M	Mechanical spring return, supported by internal pneumatic spring, direction of flow reversible	**575674**	**VUWS-L20-M32U-M-G18**
	5/2-way valve, monostable			
	M52-A	Pneumatic spring return, internal pneumatic spring, direction of flow not reversible	**575677**	**VUWS-L20-M52-A-G18**
	M52-E	Pneumatic spring return, external pneumatic spring, direction of flow reversible	**575678**	**VUWS-L20-M52-E-G18**
	M52-M	Mechanical spring return, direction of flow reversible	**575681**	**VUWS-L20-M52-M-G18**
	5/2-way valve, bistable			
	B52	Direction of flow reversible	**575684**	**VUWS-L20-B52-G18**
	5/3-way valve			
	P53C	Closed, mechanical spring return, direction of flow reversible	**575687**	**VUWS-L20-P53C-M-G18**
	P53E	Exhausted, mechanical spring return, direction of flow reversible	**575693**	**VUWS-L20-P53E-M-G18**
	P53U	Pressurised, mechanical spring return, direction of flow reversible	**575690**	**VUWS-L20-P53U-M-G18**

Pneumatic valves VUWS

Accessories – Pneumatic valves, width 20

Ordering data					
	Description		Part No.	Type	PU[1]
Push-in fitting with internal hex					
	Connecting thread M5 for tubing O.D.	4 mm	**153315**	**QSM-M5-4-I**	**10**
	Connecting thread G1/8 for tubing O.D.	4 mm	**186106**	**QS-G1/8-4-I**	**10**
		4 mm	**133008**	**QS-G1/8-4-I-100**	**100**
		6 mm	**186107**	**QS-G1/8-6-I**	**10**
			133009	**QS-G1/8-6-I-100**	**100**
		8 mm	**186109**	**QS-G1/8-8-I**	**10**
			133010	**QS-G1/8-8-I-100**	**100**
Angled push-in fitting with external hex					
	Connecting thread G1/8 for tubing O.D.	4 mm	**186116**	**QSL-G1/8-4**	**10**
			132048	**QSL-G1/8-4-100**	**100**
		6 mm	**186117**	**QSL-G1/8-6**	**10**
			132049	**QSL-G1/8-6-100**	**100**
		8 mm	**186119**	**QSL-G1/8-8**	**10**
			132050	**QSL-G1/8-8-50**	**50**
Angled push-in fitting, long, with external hex					
	Connecting thread G1/8 for tubing O.D.	4 mm	**186127**	**QSLL-G1/8-4**	**10**
			133015	**QSLL-G1/8-4-100**	**100**
		6 mm	**186128**	**QSLL-G1/8-6**	**10**
			133016	**QSLL-G1/8-6-100**	**100**
		8 mm	**186130**	**QSLL-G1/8-8**	**10**
			133017	**QSLL-G1/8-8-100**	**100**

1) Packaging unit

New

Pneumatic valves VUWS

Technical data – Pneumatic valves, width 25

FESTO

Flow rate
Up to 1300 l/min

Valve width
26.5 mm

General technical data								
Valve function		3/2		5/2		5/3		
Order code for valves		M32C	M32U	M52	B52	P53C	P53U	P53E
Valve width	[mm]	26.5						
Design		Piston spool valve						
Pneumatic spring supply		Internal or external (external: identified by E in type code)						
Type of pilot control		Direct						
Manual override (MO)		None						
Direction of flow		Reversible with restrictions (not reversible: identified by A in type code)						
Non-overlapping		Yes						
Sealing principle		Soft						
Type of mounting		Optionally via through-holes[1] or on manifold rail						
Nominal flow rate	[qnN]	1000	1000	1300	1300	1200	1000	1000
Through-holes (nominal width)	[mm]	6.3	6.3	6.9	6.9	6.5	6.3	6.3
Product weight	[g]	268	268	330/360[2]	363	364	364	364
Actuation type		Pneumatic						
Mounting position		Any						
Exhaust air function		With flow control						
Venting hole		Not ducted						
Pneumatic connection 1, 2, 4, 3, 5		G1/4						
Pneumatic spring connection 12/14, 10		M5						

1) If several 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 placing spacer discs between them.
2) With external pneumatic spring: 360 g, with internal pneumatic spring or mechanical spring: 330 g

Technical data – 3/2-way valves					
Order code for valves		M32C		M32U	
Normal position		Closed		Open	
Stable position		Monostable		Monostable	
Reset method		Pneumatic spring	Mechanical spring (supported internally by pneumatic spring)	Pneumatic spring	Mechanical spring (supported internally by pneumatic spring)
Switching times	On	10	10	10	10
	Off	25	43	25	43
	Change-over	–	–	–	–

Pneumatic valves VUWS

Technical data – Pneumatic valves, width 25

Technical data – 5/2-way valves				
Order code for valves		M52		B52
Stable position		Monostable		Bistable
Reset method		Pneumatic spring	Mechanical spring	–
Switching times	On	15	10	–
	Off	32	42	–
	Change-over	–	–	10

Technical data – 5/3-way valves				
Order code for valves		P53C	P53U	P53E
Stable position		Monostable		
Reset method		Mechanical spring		
Switching times	On	13	13	13
	Off	65	65	65
	Change-over	30	30	30

Operating and environmental conditions							
Valve function		M32 … A	M32 … E M32 … M	M52-A	M52-E M52-M	B52	P53
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]					
Pilot medium		Compressed air to ISO 8573-1:2010 [7:4:4]					
Note on operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)					
Operating pressure	[bar]	2.5 … 10	–0.9 … +10	2.5 … 10	–0.9 … +10	–0.9 … +10	–0.9 … +10
Pilot pressure	[bar]	2.5 … 10	2.5 … 10	2.5 … 10	2.5 … 10	1.5 … 10	2.5 … 10
Ambient temperature	[°C]	–10 … +60					
Temperature of medium	[°C]	–10 … +60					
Corrosion resistance class CRC[1)]		2					

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Information on materials	
Housing	Die-cast aluminium
Piston spool	Wrought aluminium alloy (P53 types: high-alloy stainless steel)
Seals	HNBR, NBR
Note on materials	RoHS-compliant

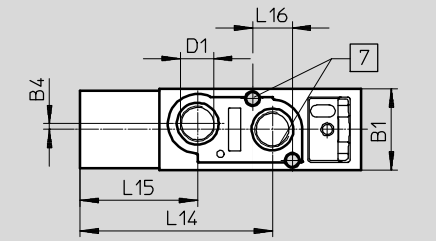
Pneumatic valves VUWS

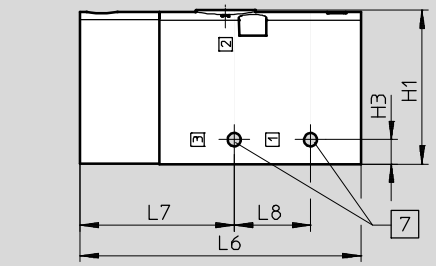
Technical data – Pneumatic valves, width 25

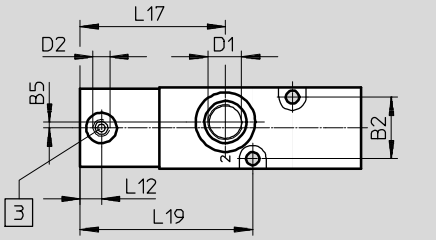
FESTO

Dimensions Download CAD data ➔ **www.festo.com**

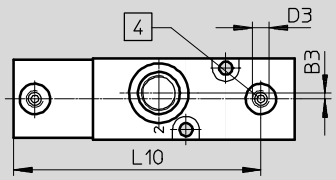
3/2-way valve, normally closed/open







3/2-way valve, normally closed/open, external pilot air



3 Port 10: for pneumatic spring (...-M32U-...)
Port 12: for pneumatic spring (...-M32C-...)

4 Port 10: for external pneumatic spring (...-M32U-E-...)
Port 12: for external pneumatic spring (...-M32C-E-...)

7 For mounting screw M4

Type	B1	B2	B3	B4	B5	D1	D2	D3	H1	H3
VUWS-L25-M32C-...-G14	26.5	20.2	1.9	1.9	1.9	G1/4	M5	–	50.5	8
VUWS-L25-M32U-...-G14								–		
VUWS-L25-M32C-E-...-G14								M5		
VUWS-L25-M32U-E-...-G14								M5		

Type	L6	L7	L8	L10	L12	L14	L15	L16	L17	L19
VUWS-L25-M32C-...-G14	92	50.5	25	–	7	63	38.5	13	47.6	56.5
VUWS-L25-M32U-...-G14				–						
VUWS-L25-M32C-E-...-G14				81						
VUWS-L25-M32U-E-...-G14				81						

Pneumatic valves VUWS

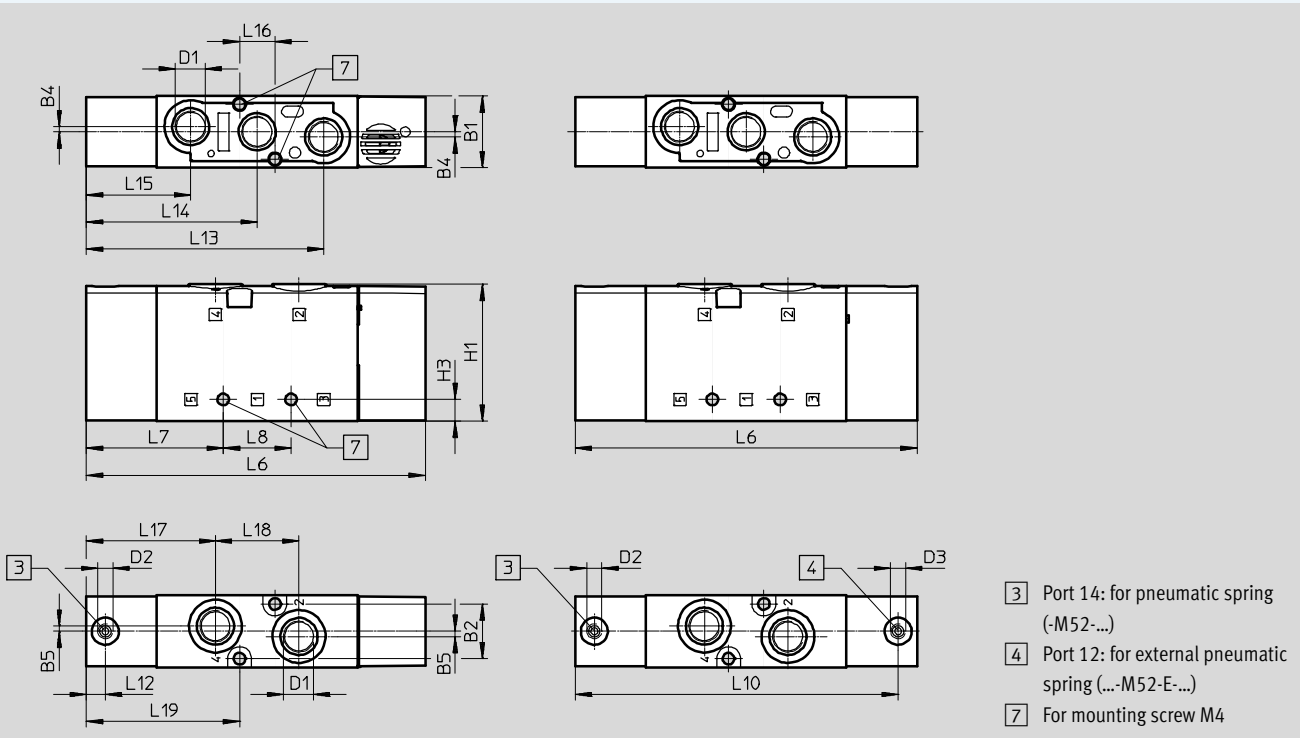
Technical data – Pneumatic valves, width 25

FESTO

Dimensions Download CAD data ➔ **www.festo.com**

5/2-way valve, monostable

5/2-way valve, monostable, external pilot air



Type	B1	B2	B4	B5	D1	D2	D3	H1	H3
VUWS-L25-M52-...-G14	26.5	20.2	1.9	1.9	G1/4	M5	–	50.5	8
VUWS-L25-M52-E-G14							M5		

Type	L6	L7	L8	L10	L12	L13	L14	L15	L16	L17	L18	L19
VUWS-L25-M52-...-G14	125	50.5	25	–	7	87.5	63	38.5	13	47.6	30.8	56.5
VUWS-L25-M52-E-G14				119								

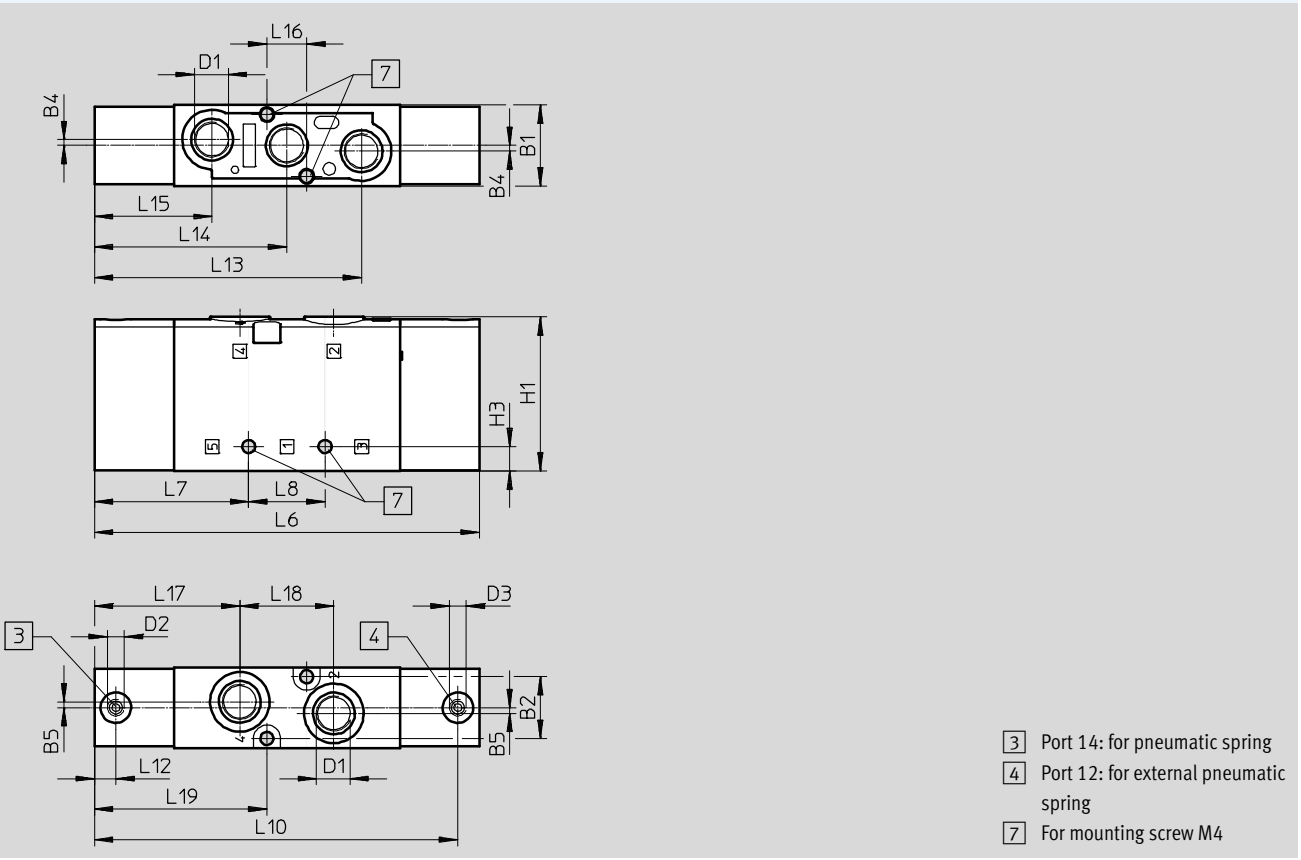
Pneumatic valves VUWS

Technical data – Pneumatic valves, width 25

FESTO

Dimensions Download CAD data ➔ **www.festo.com**

5/2-way valve, bistable, 5/3-way valve



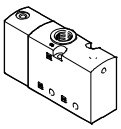
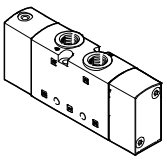
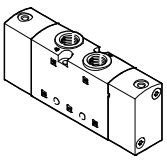
3 Port 14: for pneumatic spring
4 Port 12: for external pneumatic spring
7 For mounting screw M4

Type	B1	B2	B4	B5	D1	D2	D3	H1	H3
VUWS-L25-P53-...-M-G14	26.5	20.2	1.9	1.9	G1/4	M5	M5	50.5	8
VUWS-L25-B52-G14									

Type	L6	L7	L8	L10	L12	L13	L14	L15	L16	L17	L18	L19
VUWS-L25-P53-...-M-G14	126	50.5	25	119	7	87.5	63	38.5	13	47.6	30.8	56.5
VUWS-L25-B52-G14												

Pneumatic valves VUWS

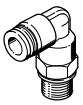
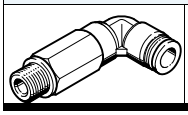
Ordering data – Pneumatic valves, width 25

Ordering data – Pneumatic valves				
	Code	Valve function	Part No.	Type
Pneumatic valves				
	3/2-way valve, monostable, closed			
	M32C-A	Pneumatic spring return, internal pneumatic spring, direction of flow not reversible	**575483**	**VUWS-L25-M32C-A-G14**
	M32C-E	Pneumatic spring return, external pneumatic spring, direction of flow reversible	**575484**	**VUWS-L25-M32C-E-G14**
	M32C-M	Mechanical spring return, internal pneumatic spring, direction of flow reversible	**575485**	**VUWS-L25-M32C-M-G14**
	3/2-way valve, monostable, open			
	M32U-A	Pneumatic spring return, internal pneumatic spring, direction of flow not reversible	**575498**	**VUWS-L25-M32U-A-G14**
	M32U-E	Pneumatic spring return, external pneumatic spring, direction of flow reversible	**575499**	**VUWS-L25-M32U-E-G14**
	M32U-M	Mechanical spring return, internal pneumatic spring, direction of flow reversible	**575500**	**VUWS-L25-M32U-M-G14**
	5/2-way valve, monostable			
	M52-A	Pneumatic spring return, internal pneumatic spring, direction of flow not reversible	**575507**	**VUWS-L25-M52-A-G14**
	M52-E	Pneumatic spring return, external pneumatic spring, direction of flow reversible	**575508**	**VUWS-L25-M52-E-G14**
	M52-M	Mechanical spring return, direction of flow reversible	**575515**	**VUWS-L25-M52-M-G14**
	5/2-way valve, bistable			
	B52	Direction of flow reversible	**575522**	**VUWS-L25-B52-G14**
	5/3-way valve			
	P53C	Closed, mechanical spring return, direction of flow reversible	**575529**	**VUWS-L25-P53C-M-G14**
	P53E	Exhausted, mechanical spring return, direction of flow reversible	**575543**	**VUWS-L25-P53E-M-G14**
	P53U	Pressurised, mechanical spring return, direction of flow reversible	**575536**	**VUWS-L25-P53U-M-G14**

Pneumatic valves VUWS

Accessories – Pneumatic valves, width 25

FESTO

Ordering data					
	Description		Part No.	Type	PU[1]
Push-in fitting with internal hex					
	Connecting thread M5 for tubing O.D.	4 mm	**153315**	**QSM-M5-4-I**	**10**
	Connecting thread G1/4 for tubing O.D.	6 mm	**186108**	**QS-G1/4-6-I**	**10**
		8 mm	**186110**	**QS-G1/4-8-I**	**10**
		10 mm	**186112**	**QS-G1/4-10-I**	**10**
Angled push-in fitting with external hex					
	Connecting thread G1/4 for tubing O.D.	6 mm	**186118**	**QSL-G1/4-6**	**10**
			132051	**QSL-G1/4-6-100**	**100**
		8 mm	**186120**	**QSL-G1/4-8**	**10**
			132052	**QSL-G1/4-8-50**	**50**
		10 mm	**186122**	**QSL-G1/4-10**	**10**
			132053	**QSL-G1/4-10-50**	**50**
Angled push-in fitting, long, with external hex					
	Connecting thread G1/4 for tubing O.D.	6 mm	**186129**	**QSLL-G1/4-6**	**10**
		8 mm	**186131**	**QSLL-G1/4-8**	**10**
		10 mm	**186133**	**QSLL-G1/4-10**	**10**

1) Packaging unit