

# Valve and valve manifold assembly VS

FESTO



## Your best choice!

### Highlights

#### VUVS

- Sturdy with high flow rates
- Can be expanded into valve manifold assemblies
- Easy to use
- Electrically and pneumatically actuated valves

#### VTUS

- Supply rail or supply plate
- Freely combinable

With its flat, continuous surfaces, impact-resistant materials and easy to clean, rugged design, the modular system of the VS range will provide you with everything, from the encapsulated O-ring to the soft-sealing poppet valve. Configure your own individualised, powerful variants and find out how to create the most attractively priced solutions.

#### Individual valves VUVS

Often used decentrally in exposed places, they have to be able to withstand anything and at the same time look the part. Pleasingly simple on the outside, reliable and sturdy on the inside, this is the perfect combination to meet a multitude of requirements, even in challenging environmental conditions. Especially the poppet variant stands out in these types of situations.

#### Valve manifold assemblies VTUS

Valve manifold assemblies are often used in decentralised locations and can feature either the same or different valve types; this is made easy thanks to their uniform characteristics. Whether on profile rails or supply plates, with or without pressure zones, you can configure the manifolds exactly in line with your needs.

More on this on pages 4 – 7 and page 10.

→ [www.festo.com/vuvs](http://www.festo.com/vuvs)

More on this on pages 8 – 9.

→ [www.festo.com/vtus](http://www.festo.com/vtus)

# Low-cost, high flow, sturdy and simple

## Valve and valve manifold assemblies VS – a significantly durable product range

### The complete product range at a glance

These are the advantages of a matching valve range:

- Same widths
- Same accessories
- Freely combinable
- Can be expanded at any time
- Can be modified at any time

### Individual valves VUVS

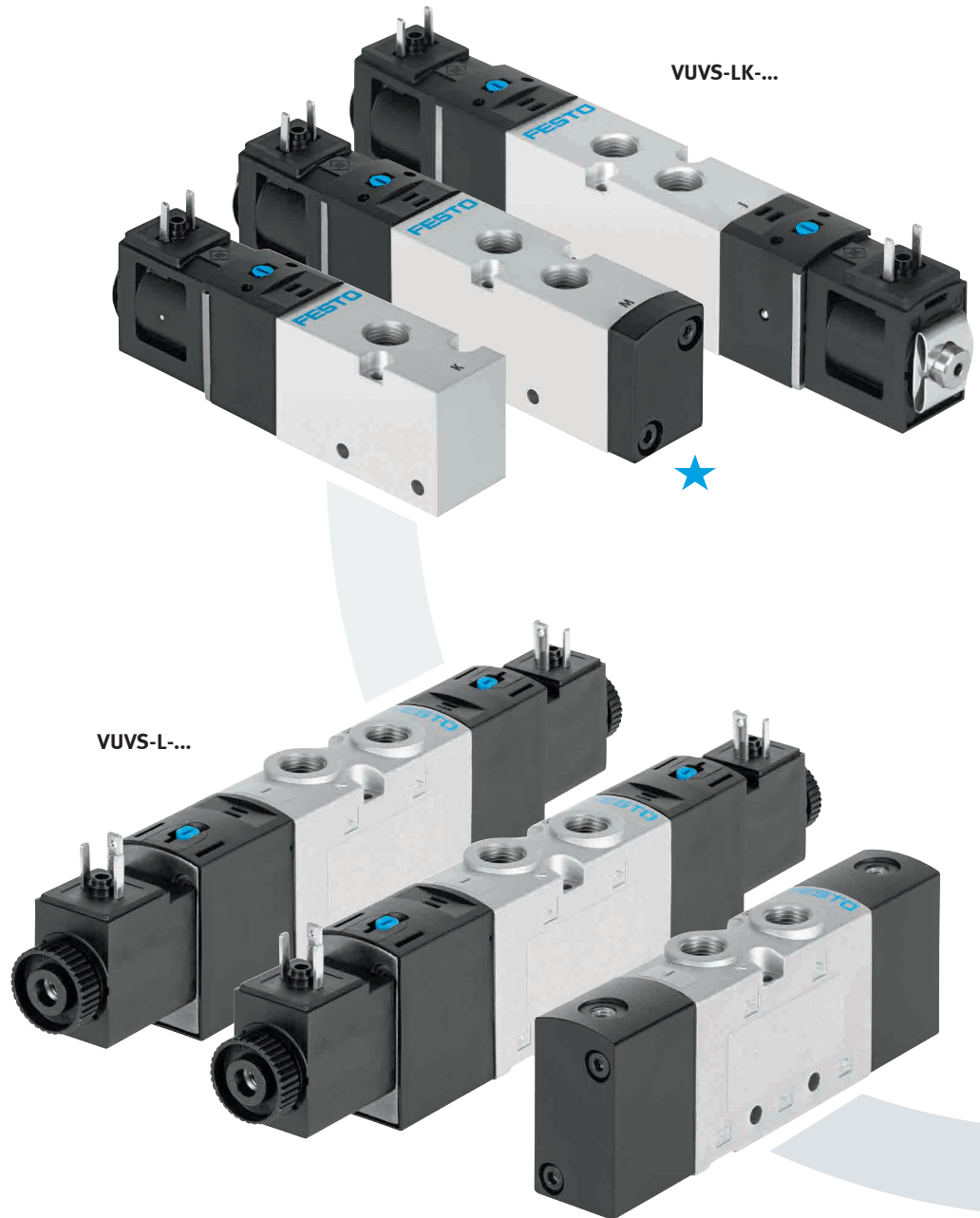
Every product in the range has its own coil head. These can be rotated in four different outlet directions as required and they are also easy to interchange. This helps to ensure a space-saving and uncluttered layout, and keeps distances short. And, last but not least, this creates a very organised impression.

### Easy: from the individual valve to the valve manifold assembly

A good example of the easy-to-install philosophy from Festo. Just mount it on the manifold rail to turn an individual valve into a valve manifold assembly with up to 10 valve positions. That is quick, easy and makes the VTUS compact.

### Delivered directly to the shop floor

Save time, money and installation effort by letting us deliver the pre-assembled valve terminals directly to the shop floor.



★ **Festo core product range** covers 80% of your automation tasks

**Worldwide:** always in stock

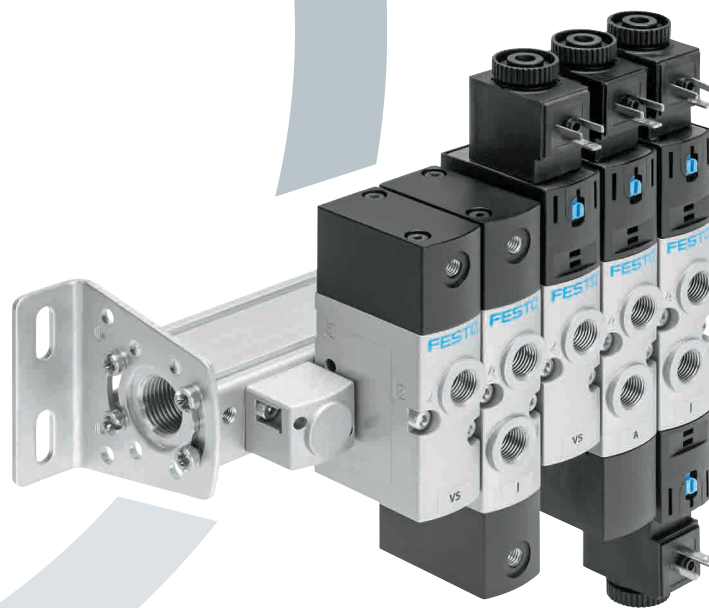
**Excellence:** Festo quality at an attractive price

**Easy:** just a few clicks to place an order online

**Fast:** usually ready for dispatch from the Festo factory in 24 hours



**Safe: central supply via a plate**  
 When using a PRS supply plate, both the exhaust air and the supply air are ducted centrally. Extra-large lateral screw connections enable many valves to be supplied, and prevent back pressure from the exhaust air impacting on the valve function. In addition, integrated check valves ensure reliability in all switching operations.



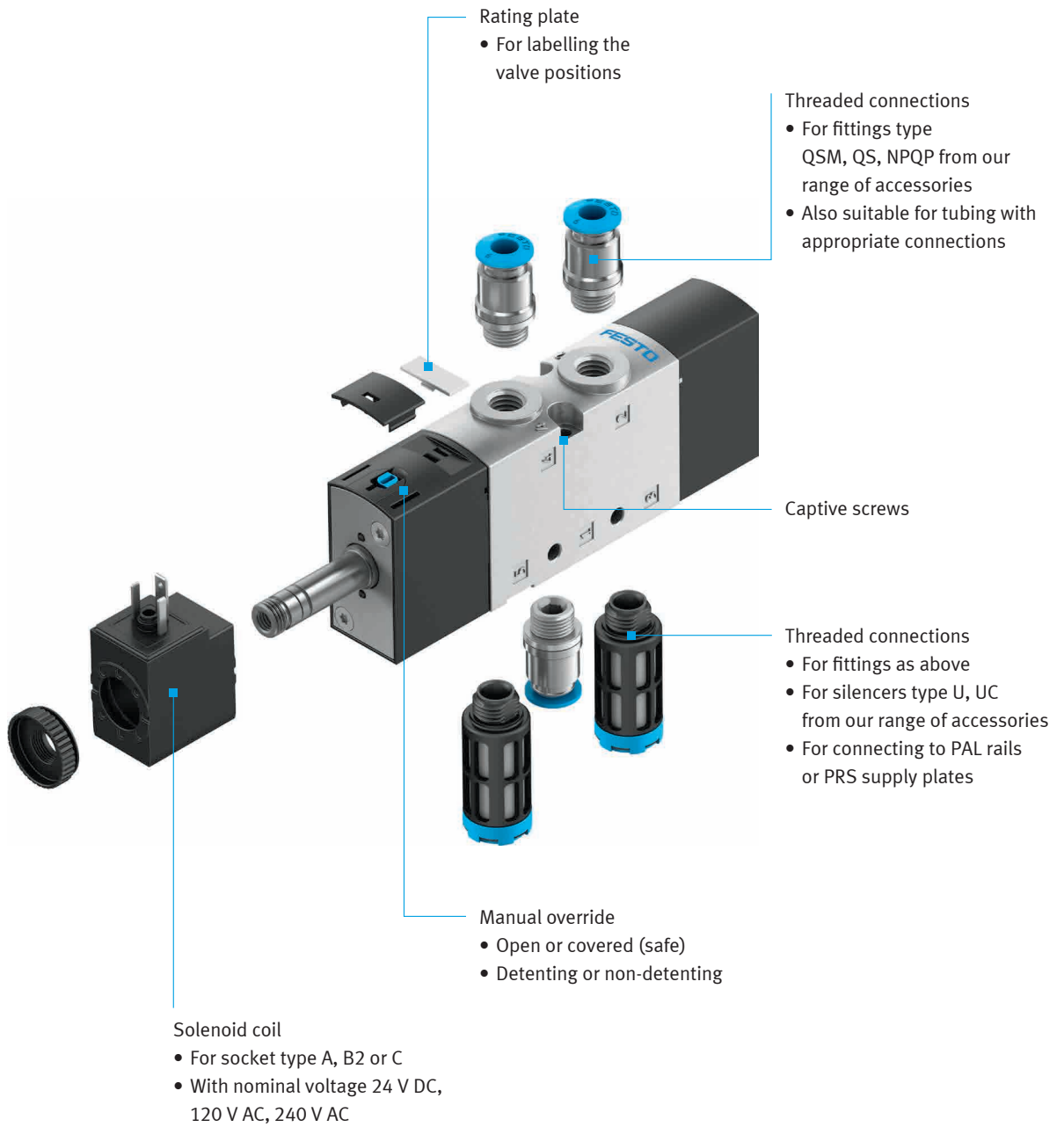
**Central supply via a rail**  
 With a PAL manifold rail, up to 16 valve positions can be pressurised centrally. Exhaust takes place via silencers or directly via tubing. This variant is often used as a slim, cost-effective bundled version of 3/2-way and 5/2-way valves.

**Versatile and purposeful**

Whether PWIS, ATEX, safety or fast-switching, your valve or valve manifold assembly should be equipped for that purpose. And since all the different requirements cannot be met with just one solution, there are other, related products within the range, all with their own characteristics. This means that you can optimally adapt your solution to the task in hand; in addition, you also have the option that allows

you to respond appropriately to ever faster change cycles. Size two to four additional valve positions for subsequent adjustments, or create a compact design that still has different voltages and pressure levels in one valve manifold assembly.

	PWIS-free	ATEX	Safety	Fast switching
VUVS-L-...	—	•	—	—
VUVS-LK-...	—	—	—	—
VUVS-LT-...	—	•	—	•



## Solenoid valves VUVS

Type code configurable online

<b>VUVS</b>	-				-															
Type of directional control valve																				
In-line valve	<b>L</b>																			
Design principle																				
Piston spool with sealing cartridge	-																			
Piston spool with sealing ring	<b>K</b>																			
Poppet valve, soft sealing	<b>T</b>																			
Size (grid dimension) / max. flow rate / pneumatic connection																				
Size 20 <sup>3)</sup> (21 mm) / 700 l/min / G 1/8	<b>20</b>																			
Size 25 <sup>3)</sup> (26.5 mm) / 1300 l/min / G 1/4	<b>25</b>																			
Size 30 <sup>3)</sup> (31 mm) / 2300 l/min / G 3/8	<b>30</b>																			
Valve functions																				
3/2-way valve, single solenoid, normally closed	<b>M32C</b>																			
3/2-way valve, single solenoid, normally open	<b>M32U</b>																			
2x 3/2-way valve, normally closed	<b>T32C</b>																			
2x 3/2-way valve, 1x normally closed, 1x normally open	<b>T32H</b>																			
2x 3/2-way valve, normally open	<b>T32U</b>																			
5/2-way valve, double solenoid	<b>B52</b>																			
5/2-way valve, single solenoid	<b>M52</b>																			
5/3-way valve, mid-position closed	<b>P53C</b>																			
5/3-way valve, mid-position exhausted	<b>P53E</b>																			
5/3-way valve, mid-position pressurised	<b>P53U</b>																			
Reset method																				
Without (for valve functions B52)	-																			
Pneumatic spring for valve functions M52 and M32	<b>A</b>																			
Mechanical spring for valve functions M52 and M32	<b>M</b>																			
Pilot air supply port																				
Internal	-																			
External	<b>Z</b>																			
Manual override																				
Non-detenting, detenting, without accessories	<b>D</b>																			
Version																				
-	Version with extended features																			
<b>S</b>	Version with core features																			
Explosion prevention and protection																				
<b>EX2</b>	ATEX II 3 GD																			
Electrical connection																				
-	Without solenoid coil																			
<b>B2</b>	Connection pattern type B, industry standard																			
<b>C1</b>	Connection pattern type C, to EN 175301																			
Nominal operating voltage																				
-	Without																			
<b>1</b>	24 V DC																			
<b>1A</b>	24 V AC																			
<b>3W</b>	230/240 V AC																			
<b>7A</b>	48 V AC																			
<b>16B</b>	120 V AC / 110 V AC																			
<b>5</b>	12 V DC																			
<b>7</b>	48 V DC																			
Valve pilot control interface																				
-	Standard																			
<b>F7</b>	With 8 mm armature tube, short																			
<b>F8</b>	With 8 mm armature tube, standard																			
Pneumatic connection																				
<b>G18</b>	Thread 1/8																			
<b>G14</b>	Thread 1/4																			
<b>G38</b>	Thread 3/8																			

## Order information – Solenoid valves VUVS



### Configurable product

This product and all its variants can be ordered via the configurator.

You can find the configurator under Products

→ [www.festo.de/catalogue/vuvs](http://www.festo.de/catalogue/vuvs)

Enter the configuration part number in the search field:

<sup>1)</sup> Size 20: 576516

<sup>2)</sup> Size 25: 8022014

<sup>3)</sup> Size 30: 8022017

## Valve functions and accessories

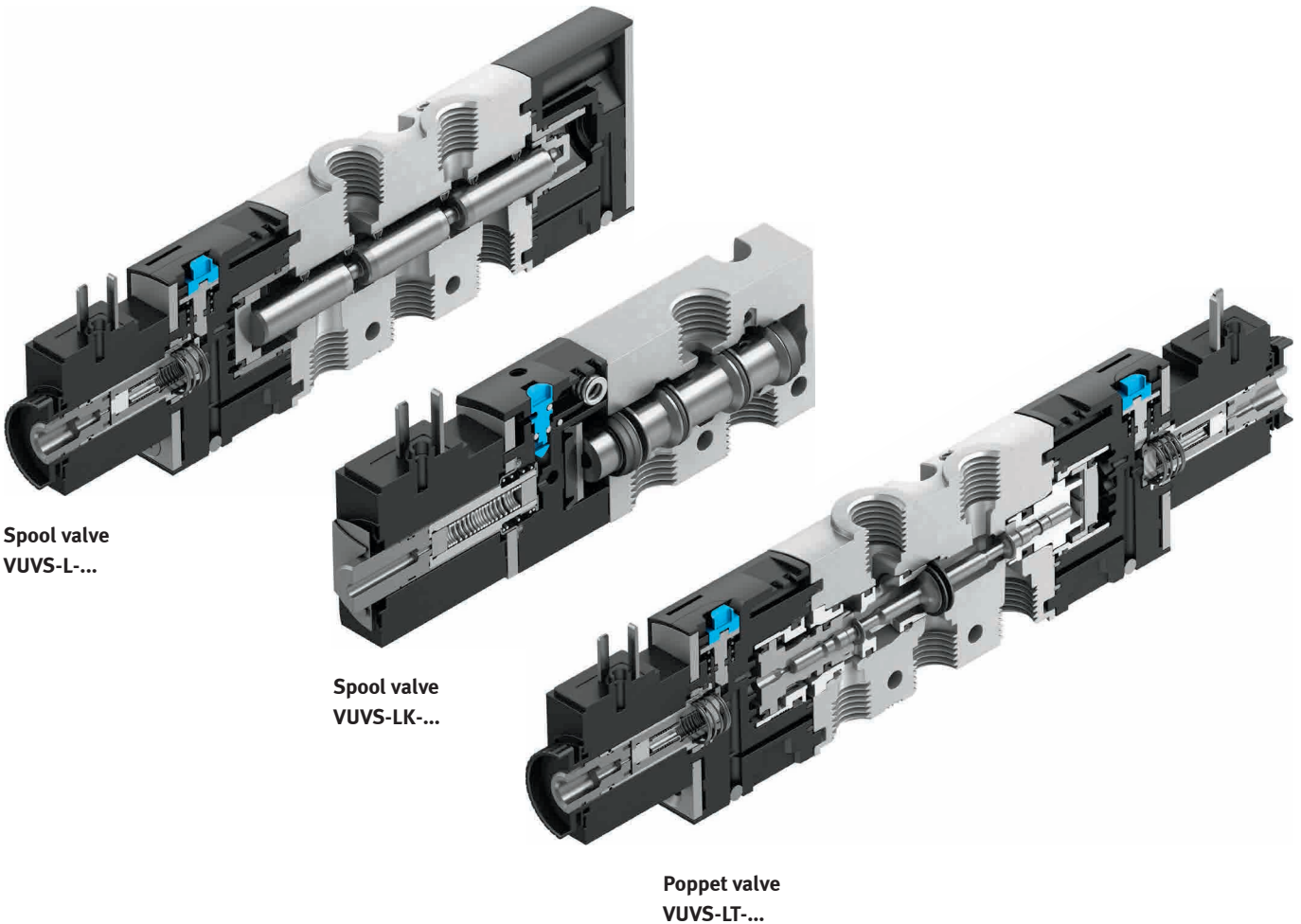
**The secret of the success of the VS series is on the inside thanks to excellent engineering.**

The patented cartridge principle makes the VUVS the most powerful valve in its class. Internal, positive-locking and made of particularly stable materials: three reasons for the superb sealing characteristics of the VUVS. And a major reason for extremely high flow rates.

Neatly separated pressures mean that overlapping between the air ducts during dual pressure operation, common in other valves, does not happen with the VUVS.

Reversible: two pressures in one valve (compressed air at ports 3 and 5) – the exhaust air flows through port 1.

The patented cartridge. Its design, layout and materials ensure exceptionally high performance.



Spool valve  
VUVS-L...

Spool valve  
VUVS-LK...

Poppet valve  
VUVS-LT...

## Pneumatic valves VUWS

Type code configurable online

<b>VUWS</b>	-	<b>L</b>			-		
Type of directional control valve							
In-line valve		<b>L</b>					
Design principle							
Piston spool with sealing cartridge						<b>-</b>	
Poppet valve, soft seal							<b>T</b>
Size							
Valve width	21 mm						<b>20</b>
	26.5 mm						<b>25</b>
	31 mm						<b>30</b>
Valve functions							
3/2-way valve, normally closed							<b>M32C</b>
3/2-way valve, normally open							<b>M32U</b>
2x 3/2-way valve, normally closed							<b>T32C</b>
2x 3/2-way valve, normally open							<b>T32U</b>
2x 3/2-way valve, normally 1x open, 1x closed							<b>T32H</b>
5/2-way valve, monostable							<b>M52</b>
5/2-way valve, bistable							<b>B52</b>
5/3-way valve, mid-position closed							<b>P53C</b>
5/3-way valve, mid-position pressurised							<b>P53U</b>
5/3-way valve, mid-position exhausted							<b>P53E</b>

Exhausting							
-							Without fitting
<b>QN</b>							With fitting
<b>U1</b>							Silencer with metal housing
<b>U3</b>							Silencer with polymer housing
<b>U5</b>							Silencer with sintered housing
Pneumatic connection							
<b>G18</b>							Thread G 1/8
<b>G14</b>							Thread G 1/4
<b>G38</b>							Thread G 3/8
<b>Q4</b>							Push-in connector 4 mm
<b>Q6</b>							Push-in connector 6 mm
<b>Q8</b>							Push-in connector 8 mm
<b>Q10</b>							Push-in connector 10 mm
<b>Q12</b>							Push-in connector 12 mm
Type of reset							
-							None (for bistable valves)
<b>A</b>							Pneumatic spring
<b>E</b>							Pneumatic spring, external
<b>M</b>							Mechanical spring

## Order information – Pneumatic valves VUWS

### Configurable product

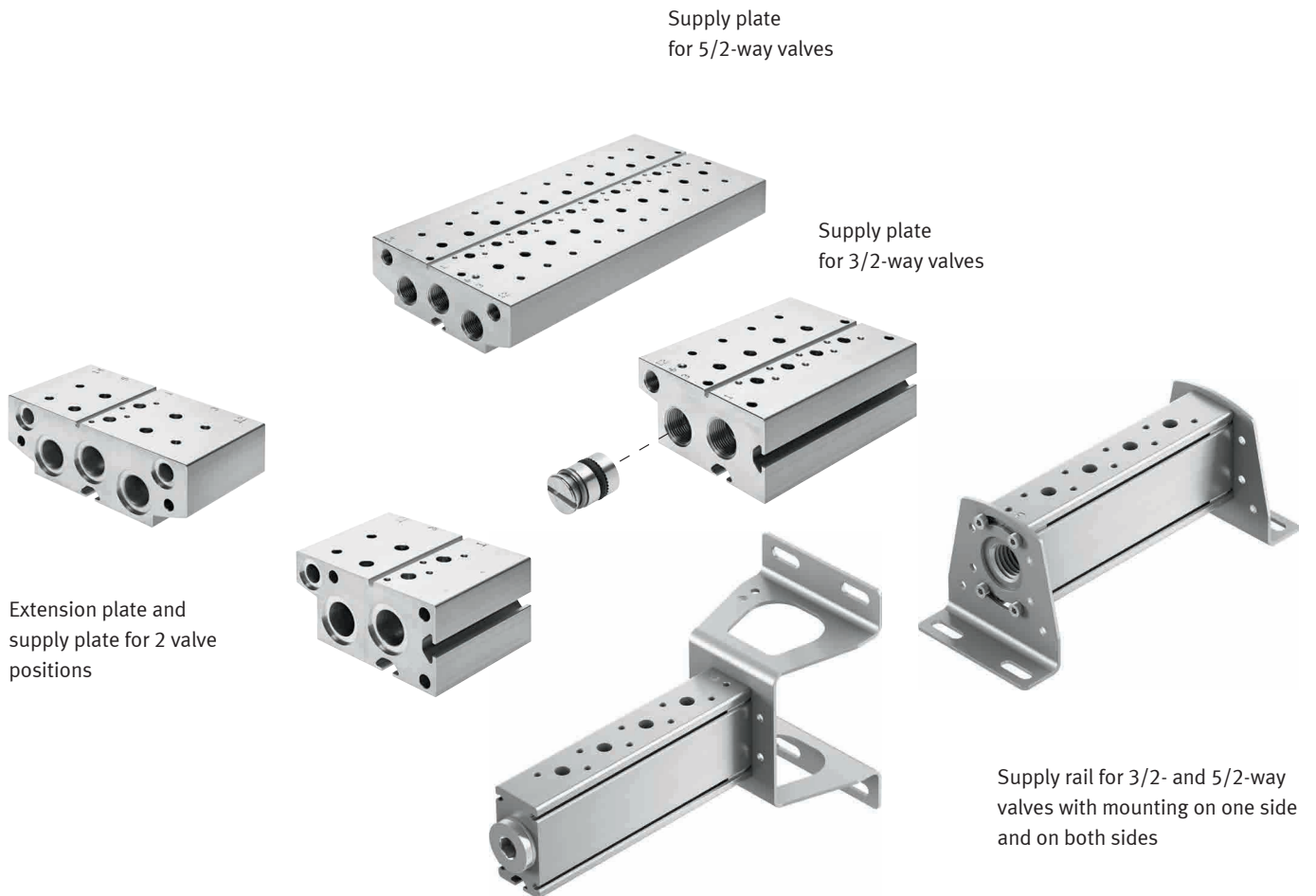
This product and all its variants can be ordered via the configurator.

You can find the configurator under Products

→ [www.festo.de/catalogue/vuws](http://www.festo.de/catalogue/vuws)



## Valve manifold assembly and variants



### Order information – Manifold rail variants VABM

**Configurable product**  
This product and all its variants can be ordered via the configurator.

You can find the configurator under Products

→ [www.festo.de/catalogue/vabm](http://www.festo.de/catalogue/vabm)

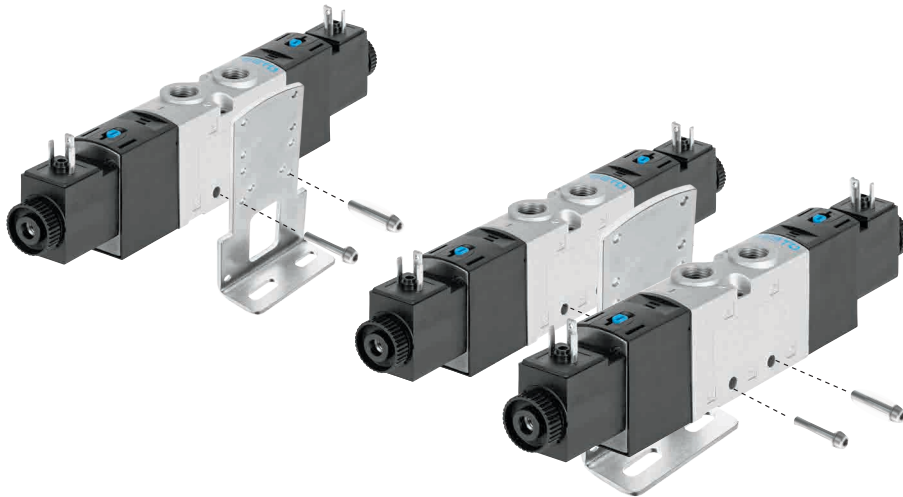
Enter the configuration part number in the search field: 573605



## Mounting accessories VAME-...

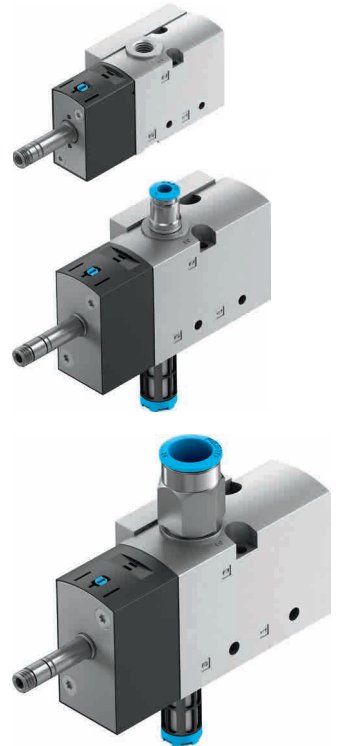
### Mounting bracket for single mounting or double mounting

Single mounting internal or external



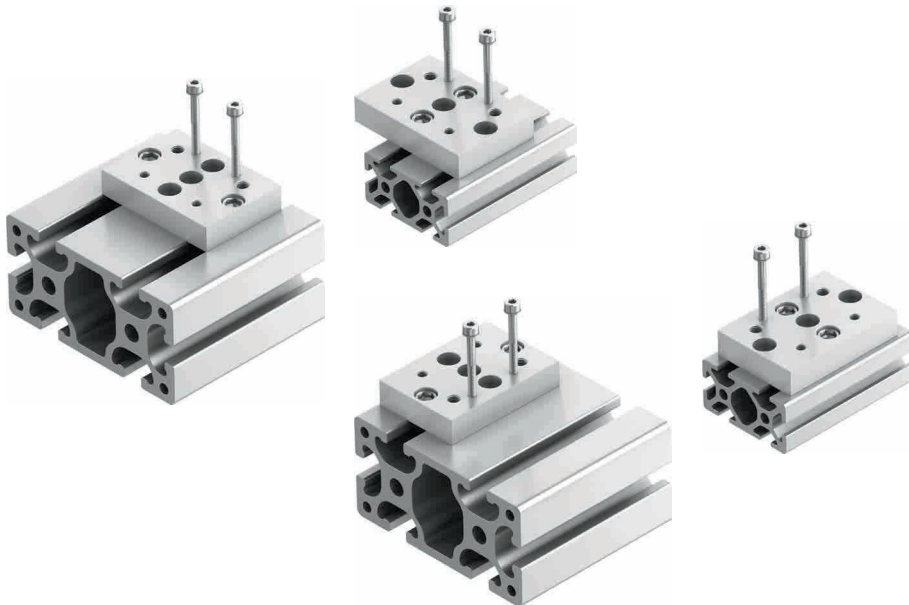
### Mounting plate

Can be used for all sizes



### Mounting plate

Also suitable for profile mounting



### H-rail brackets

To click into H-rails



## Order information – Manifold rail variants VAME

### Configurable product

This product and all its variants can be ordered via the configurator.

You can find the configurator under Products

→ [www.festo.de/catalogue/vame](http://www.festo.de/catalogue/vame)

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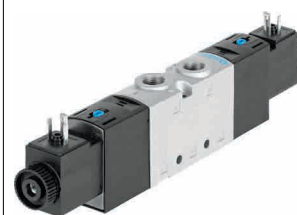
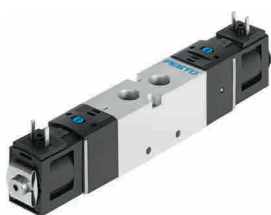
## Pneumatic valves VUWS-...



### Technical data

Width [mm]	20	25	30
VUWS-...	G1/8	G1/4	G3
Valve function	5/2, 5/3, 3/2		
Pressure range [bar]	0 ... 10		
Flow rate [l/min]	700	1200	2000
Temperature range [°C]	-10 ... +60		

## Solenoid valves VUVS-...



### Technical data

#### ★ Attractively priced

#### Universal

#### Unique

Advantage	Attractively priced, simple	High flow rate, great variety	Short switching time, well sealed for good oil resistance
Type	VUVS-LK-...	VUVS-L-...	VUVS-LT-...
3/2	20/25/30	20/25/30	20/25/30
2*3/2	—	—	20/25/30
5/2 single	20/25/30	20/25/30	20/25/30
5/2 double	20/25/30	20/25/30	20/25/30 (with detent function)
5/3	—	20/25/30	—
Pressure range [bar]	Up to 8	Up to 10	Up to 10
Electrically actuated	•	•	•
Pneumatically actuated	—	•	•
External pilot air possible	—	•	•
Flow rate [l/min]	550/1000/1600	700/1200/2000	500/860/1440
Electrical connection	Type C, EN175301 (20) Type B2 industry standard (25/30)	Type C 20/25/30 Type B industry standard (25/30) Type A EN175301 (30)	Type C 20/25/30 Type B industry standard (25/30) Type A EN175301 (30)
Voltage variants	24 V DC	DC: 12 V, 24 V AC: 24 V, 48 V, 120 V, 240 V	DC: 12 V, 24 V AC: 24 V, 48 V, 120 V, 240 V
Temperature range [°C]	Individual assembly	-5 ... +50	-10 ... +60
	Manifold assembly	-5 ... +50	-10 ... +50
Degree of protection	IP65	IP65 / IP67	IP65 / IP67





# Productivity

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