Solenoid valves VUVB/valve terminals type 24 VTUB

FESTO

- Electrically actuated valves
- With internal or external pilot air
- Sturdy polymer valves on a stable aluminium manifold rail
- Individual or manifold mounting
- Suitable for vacuum
- Valve manifold with pressure zone separation
- Additional power supply for high performance

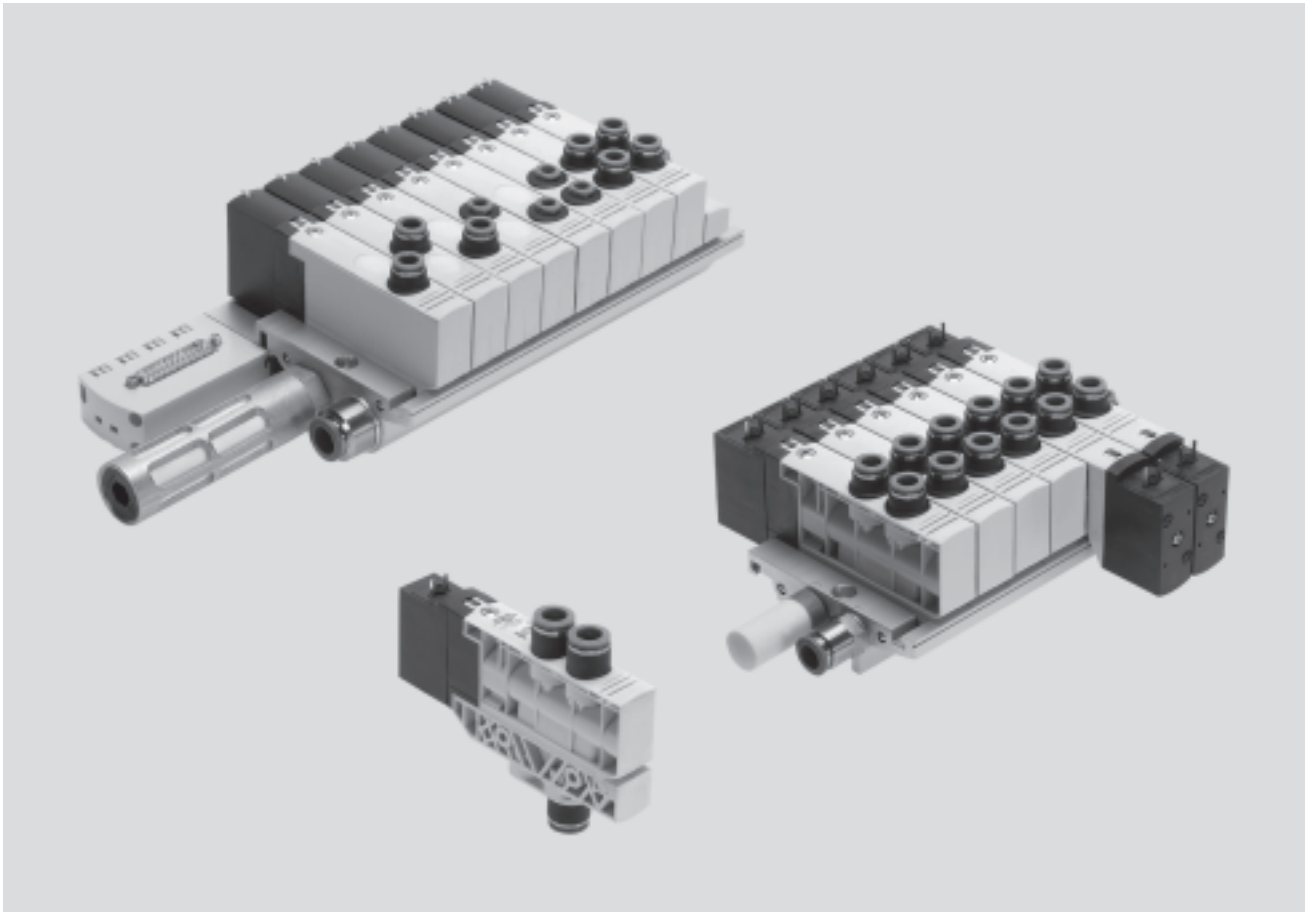
design award winner 2005 gold

reddot design award winner 2005

Focus Know-how Silber 2005

Solenoid valves VUVB/valve terminals type 24 VTUB

Key features



Innovative

- Valve terminal for a wide range of pneumatic applications
- Universal from the individual valve up to the multi-pin plug
- Enormous flexibility during planning, assembly and operational use
- Selectable valve functions; 3/2- and 4/2-way function also suitable for vacuum applications
- Wide selection of optimally tailored accessories for flow rates from 200 to 1,000 l/min

Flexible

- Room for expansion with 2 ... 12 valve positions on one valve terminal
- Use of individual valves in combination with an individual sub-base
- The flexibility of the pneumatic working ports provides a practical solution to different requirements
- Two pressure zones (others on request)
- High pressure range –0.9 ... 8 bar
- Extensive operating voltage range from 12 V DC to 230 V AC

Reliable

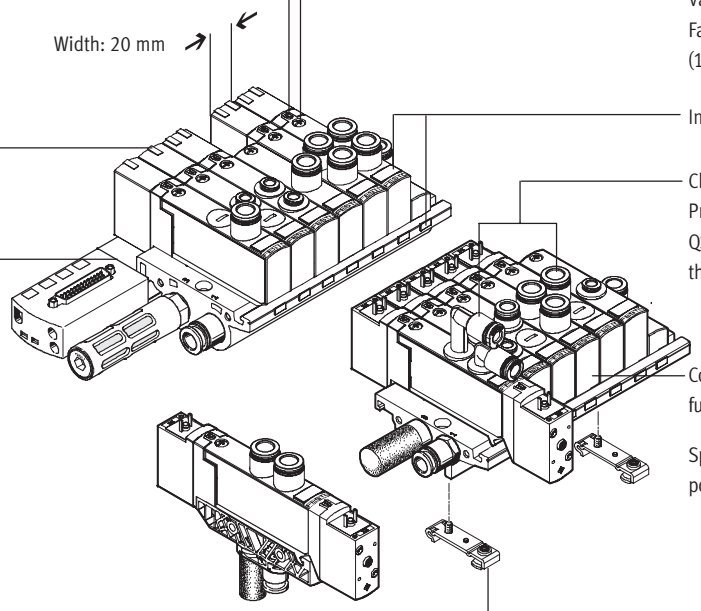
- Manual override facility
- Durable thanks to the use of tried-and-tested piston spool valves
- Sturdy thanks to the polymer housing and metal manifold rail
- Fast troubleshooting thanks to an LED signal status display in the plug socket with cable or on the valve in the case of the design with multi-pin plug

Easy to mount

- Ready-to-install unit, already assembled and tested
- Minimised expenditure with regard to ordering, installation and commissioning
- Secure wall mounting or H-rail mounting

Solenoid valves VUVB/valve terminals type 24 VTUB

Key features



Equipment options

Valve functions

- 3/2-way valve, normally open
- 3/2-way valve, normally closed
- 4/2-way valve, single solenoid
- 4/2-way valve, double solenoid

Electrical connection options

Individual connection/individual valve connection

- 2 ... 12 valve positions with manifold rail
- Via plug socket with cable with either LED or illuminating seal

Multi-pin plug

- 4 ... 12 valve positions/ max. 24 solenoid coils
- Sub-D

Solenoid valves VUVB/valve terminals type 24 VTUB

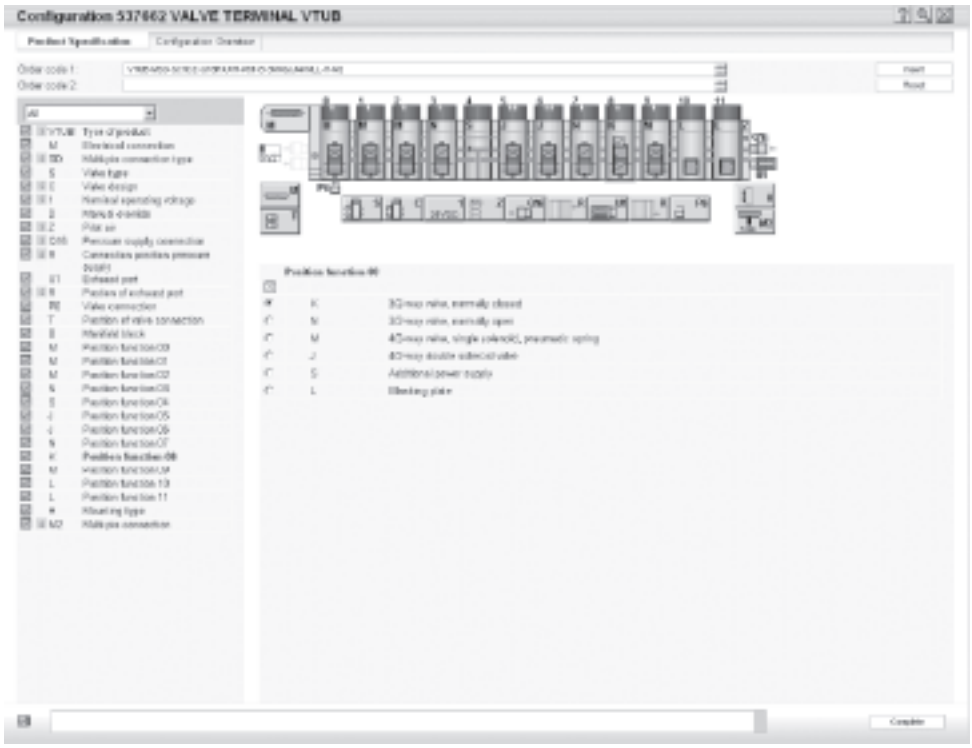
Key features

Valve terminal configurator Online via: ➔ **www.festo.com/en/engineering**

A valve terminal configurator is available to help you select a suitable valve terminal VTUB. This makes it much easier for you to find the right product.
Valve terminals type 24 VTUB are ordered via an ident. code.

All valve terminals are supplied fully assembled and individually tested. This reduces the amount of assembly and installation required to a minimum.

Ordering system for valve terminal type 24 VTUB
- Individual electrical connection
➔ Page 4 / 2.4-27
- Electrical multi-pin connection
➔ Page 4 / 2.4-46



The illustration above provides an example of a valve terminal configuration.
The following steps explain how you arrive at the order code:

Once you have called up the Festo home page, select the online version of the digital product catalogue from the “Products” submenu: this will bring you directly to the home page for the Pneumatic Catalogue. Activate the “Direct Search” menu.

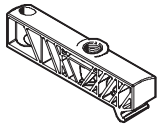
Here you can specify a “Part No.” (e.g. 537 662), the “Type” (e.g. VTUB) or “Article name” (e.g. valve terminal) to find your “Search result”. Click on the blue shopping basket to complete the selected product according to your specifications (this does not initiate an order). You will then be prompted to configure the product.

Select “Configurator”.
You can then configure the valve terminal step by step (from the top down) according to your requirements. Confirm your configuration with “Finish” to continue on with the ordering process.

Solenoid valves VUVB/valve terminals type 24 VTUB

Key features

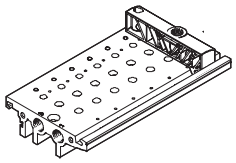
Pilot air supply module



The pilot air supply module is included in the scope of delivery of the manifold rail.

The pilot air supply module for internal or external pilot air supply ensures even greater flexibility.

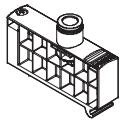
Manifold rail



The manifold rail features a groove into which the semi in-line valves are latched and secured with just one screw.

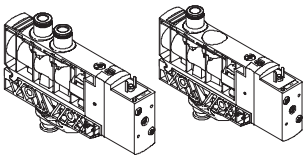
The valve functions 4/2-way single solenoid, 4/2-way double solenoid, 3/2-way normally closed and 3/2-way normally open are available. All semi in-line valves can be supplied with cartridges QSP for tubing diameters 4, 6, 8 and 10. 4/2-way valves are also supplied without cartridges, allowing the user to fit cartridges of their choice or blanking plugs.

Pressure zone supply module



The pressure zone supply module occupies one valve position and can be used as an additional supply or for supplying a pressure zone.

Individual valve



The individual valve can be ordered as an in-line valve (comprising semi in-line valve and sub-base ready assembled) in all functions. Tubing diameters 6 and 8 can be selected here. The in-line valve, however, can also be assembled from the individual parts sub-base and semi in-line valve. All tubing diameters and the variant without cartridge are available in this case.

Blanking plate

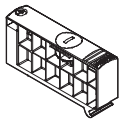
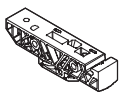


Plate without valve function for reserving valve positions on a valve terminal.

Valves and blanking plates are attached to the manifold rail using a screw.

Sub-base



Individual sub-bases can be equipped with any valve.

Electrical connection is by means of a standardised connector plug, square design to EN 175301-803, type C.

Prefabricated plug sockets with cable or plugs for self-assembly are offered for this.

Solenoid valves VUVB/valve terminals type 24 VTUB

Key features – Pneumatic components

FESTO

Pneumatic connection

Supply and exhaust

The valves are supplied pneumatically via manifold rails or individual sub-bases.

The manifold rails contain common lines for compressed air supply, exhaust and pilot exhaust for all valves.

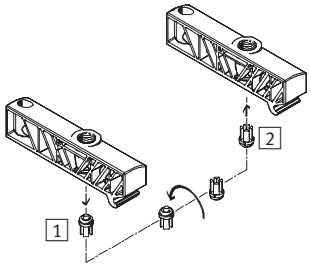
The common lines can be connected
- at the left (code L)
- at the right (code R) or
- at both ends (no code)

Pilot air

In-line valves are offered with internal and external pilot air. In the case of semi in-line valves, the installation position of the insert in the sub-base determines whether the valves will be actuated internally or externally.

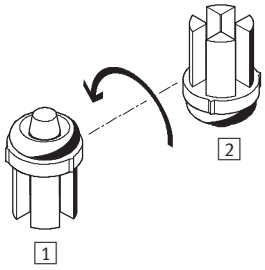
Internal pilot air
An internal pilot air supply can be selected if the supply pressure is between 2 and 8 bar. The pilot air is branched from channel 1 in the pressure zone supply module in this case.

External pilot air
An external pilot air supply must be used if the supply pressure is between –0.9 and +2 bar. The pilot air is supplied via port 12/14 of the pressure zone supply module in this case.



If the selector is installed as shown in position 1, it means that the pilot air supply will be branched internally from channel 1.

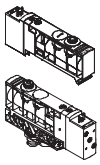
If the selector is turned 180° and installed as shown in position 2, it means that the valve manifold is set to external pilot air supply.

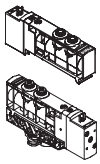
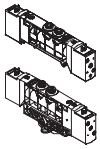


Solenoid valves VUVB/valve terminals type 24 VTUB

Product range overview – Individual valves and manifold valves

FESTO

Function	Version	Type	Nominal flow rate [l/min]	Pneumatic connection	Operating voltage [V]	Semi in-line valve	In-line valve	Pilot air supply		➔ Page
								internal	external	
3/2-way valves	Single solenoid valve for individual connection and valve manifold									
		VUVB-...-M32-...	200	QS-4	24 DC 110 AC 230 AC 12 DC/24 AC	■	–	–	■	4 / 2.4-15
			500	QS-6		■	■	■	■	
			800	QS-8		■	■	■	■	
			1,000	QS-10		■	–	–	■	

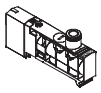
Function	Version	Type	Nominal flow rate [l/min]	Pneumatic connection	Operating voltage [V]	Semi in-line valve	In-line valve	Pilot air supply		➔ Page
								internal	external	
4/2-way valves	Single solenoid valve for individual connection and valve manifold									
		VUVB-...-M42-...	200	QS-4	24 DC 110 AC 230 AC 12 DC/24 AC	■	–	–	■	4 / 2.4-15
			500	QS-6		■	■	■	■	
			800	QS-8		■	■	■	■	
			1,000	QS-10		■	–	–	■	
			1,000	QX[1)]		■	–	–	■	
	Double solenoid valve for individual connection and valve manifold									
		VUVB-...-B42-...	200	QS-4	24 DC 110 AC 230 AC 12 DC/24 AC	■	–	–	■	4 / 2.4-15
			500	QS-6		■	■	■	■	
			800	QS-8		■	■	■	■	
			1,000	QS-10		■	–	–	■	
			1,000	QX[1)]		■	–	–	■	

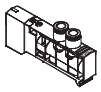
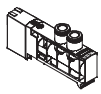
1) Cartridge not included

Solenoid valves VUVB/valve terminals type 24 VTUB

Product range overview – Terminal valves

FESTO

Function	Version	Type	Nominal flow rate [l/min]	Pneumatic connection	Operating voltage [V]	Semi in-line valve	Pilot air supply external	→ Page
3/2-way valves	Single solenoid valve for valve terminal with electrical multi-pin plug connection							
		VUVB-...-M32-...	200	QS-4	24 DC	■	■	4 / 2.4-39
			500	QS-6		■	■	
			800	QS-8		■	■	
			1,000	QS-10		■	■	

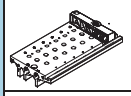
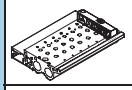
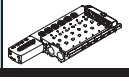
Function	Version	Type	Nominal flow rate [l/min]	Pneumatic connection	Operating voltage [V]	Semi in-line valve	Pilot air supply external	→ Page
4/2-way valves	Single solenoid valve for valve terminal with electrical multi-pin plug connection							
		VUVB-...-M42-...	200	QS-4	24 DC	■	■	4 / 2.4-39
			500	QS-6		■	■	
			800	QS-8		■	■	
			1,000	QS-10		■	■	
			1,000	QX[1)]		■	■	
	Double solenoid valve for valve terminal with electrical multi-pin plug connection							
		VUVB-...-B42-...	200	QS-4	24 DC	■	■	4 / 2.4-39
			500	QS-6		■	■	
			800	QS-8		■	■	
			1,000	QS-10		■	■	
			1,000	QX[1)]		■	■	

1) Cartridge not included

Solenoid valves VUVB/valve terminals type 24 VTUB

Product range overview

FESTO

Function	Version	Type	Pneumatic connection	Valve positions 2	3	4	5	6	7	8	9	10	11	12	Pilot air supply internal	external	→ Page
Manifold rail	For valve manifold with individual electrical connection																
		VABM	G¼	■	■	■	■	■	■	■	■	■	■	■	■	■	4 / 2.4-24
		VABM	G½	■	■	■	■	■	■	■	■	■	■	■	■	■	4 / 2.4-25
	For valve terminal with electrical multi-pin plug connection																
		VABM-...-M1	G½	–	–	■	–	■	–	■	–	■	–	■	■	■	4 / 2.4-45

Function	Version	Type	Pilot air supply internal	external	→ Page
Sub-base	Individual valve				
		VABS	■	■	4 / 2.4-26

Function	Version	Type	Pneumatic connection	Use	→ Page
Pressure zone supply module		VABF	QS-10	For additional supply to the manifold rail	4 / 2.4-49

Function	Version	Type	Use	→ Page
Blanking plate		VABB	For covering vacant positions	4 / 2.4-50

Function	Version	Type	Use	→ Page
Separator		VABD	For duct separation	4 / 2.4-50

Function	Version	Type	Use	→ Page
H-rail mounting kit		VAME	For mounting on the H-rail NRH-35-2000	4 / 2.4-51

Function	Version	Type	→ Page
Cartridge fitting		QSP...	4 / 2.4-54

Function	Version	Type	→ Page
Adapter		NPFA	4 / 2.4-55

Solenoid valves VUVB

Peripherals overview

FESTO

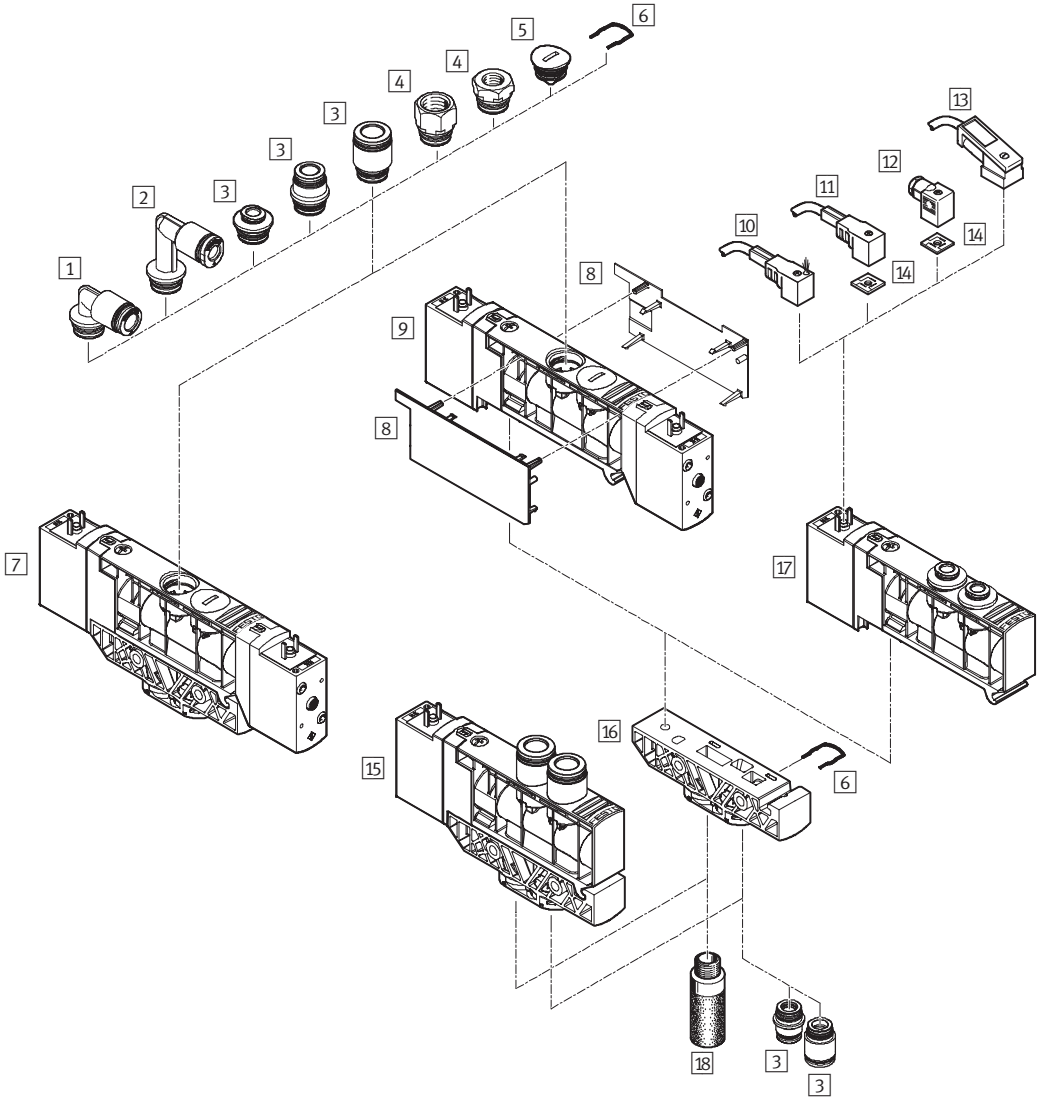
Overview – Solenoid valve VUVB

Individual position with individual electrical connection

These peripherals are ordered via individual parts/accessories.

The individual valve can be ordered as an in-line valve or as a fully assembled semi in-line valve on a sub-base.

The in-line valve is available with 6 or 8 mm plug connectors. The semi in-line valve on sub-base is available with 4, 6, 8 or 10 mm plug connectors or as a variant without cartridge fitting.



Solenoid valves VUVB

Peripherals overview

Accessories			
		Brief description	➔ Page
1	Cartridge fitting QSPL	For connecting compressed air tubing with standard external diameters	4 / 2.4-54
2	Cartridge fitting QSPLL	For connecting compressed air tubing with standard external diameters	4 / 2.4-54
3	Cartridge fitting QSP	For connecting compressed air tubing with standard external diameters	4 / 2.4-54
4	Adapter NPFA	–	4 / 2.4-55
5	Blanking plug QSPC18	For sealing the pneumatic connections on the valve	4 / 2.4-55
6	Retaining clip	For fitting cartridges and blanking plugs (included in the scope of delivery of the cartridge QSP... and the blanking plug QSPC18)	–
7	Double solenoid valve VUVB-L-...-B-...	In-line valve	4 / 2.4-15
8	Cover plate for valve housing VAMC	–	4 / 2.4-52
9	Double solenoid valve VUVB-S-...-B-...	Semi in-line valve	4 / 2.4-15
10	Plug socket with cable with LED KMEB-1-...-LED	For indicating the signal status	4 / 2.4-56
11	Plug socket with cable KMEB-1-230AC-...	Can be used up to 230 V	4 / 2.4-56
12	Plug socket MSSD-EB	–	4 / 2.4-56
13	Plug socket with cable with LED KMEB-2-24-...	For indicating the signal status	4 / 2.4-56
14	Illuminating seal MEB-LD	For indicating the signal status	4 / 2.4-56
15	Single solenoid valve VUVB-L-...-M-...	In-line valve	4 / 2.4-15
16	Sub-base VABS-B6-PB-...	For individual valve	4 / 2.4-53
17	Single solenoid valve VUVB-S-...-M-...	Semi in-line valve	4 / 2.4-15
18	Silencer U, UC	For fitting in exhaust ports	4 / 2.4-55

Solenoid valves VUVB

Peripherals overview

FESTO

Overview – Solenoid valve VUVB

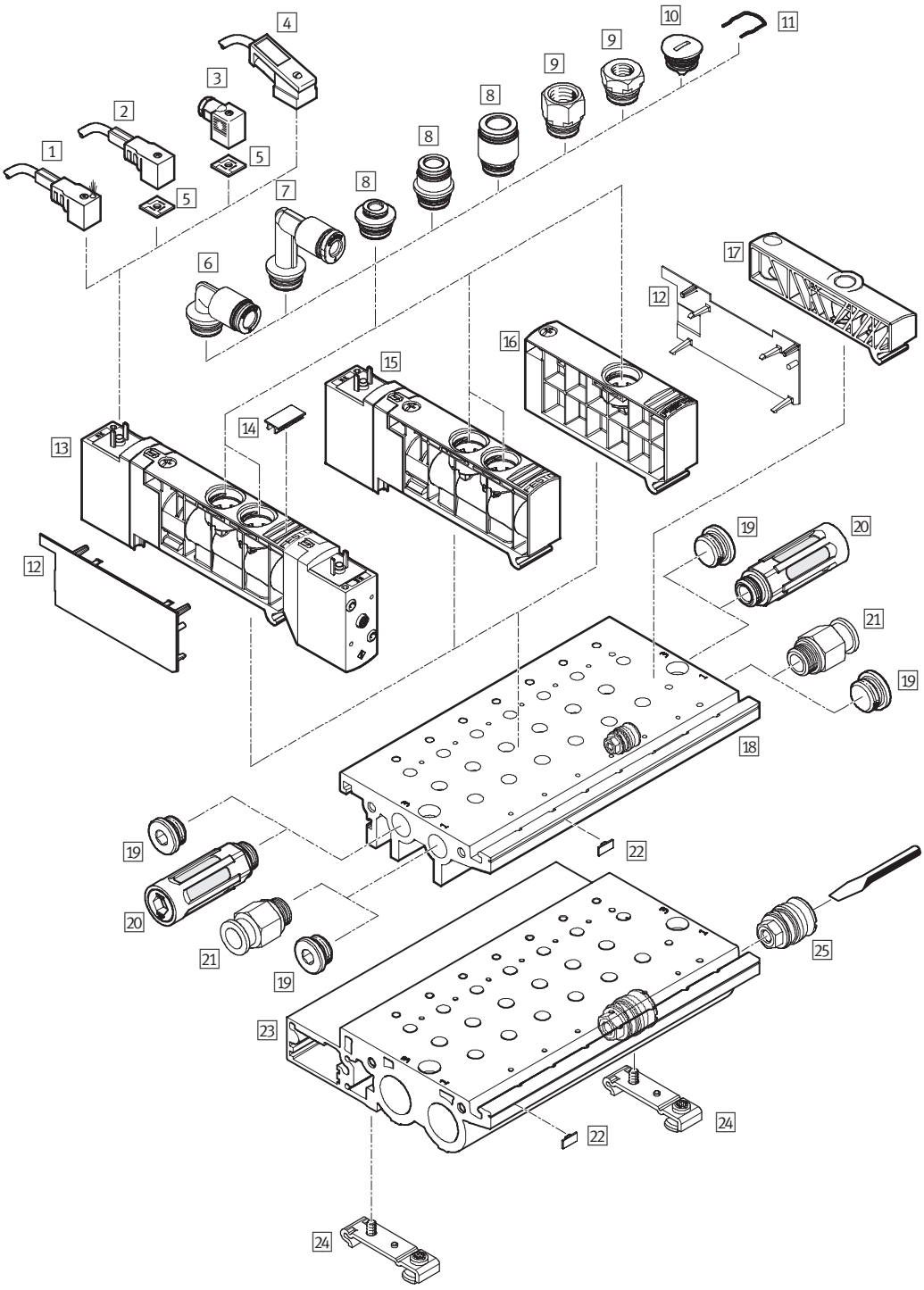
Manifold assembly/valve terminal with individual electrical connections

- "Individual connection type" code: ET

Valve terminals with individual electrical connections are available in gradations from 2 to max. 12 valve positions.

Valve positions can either be fitted with a valve or a blanking plate for future expansions.

This gives a total maximum number of 24 controllable valve solenoid coils.



Solenoid valves VUVB

Peripherals overview

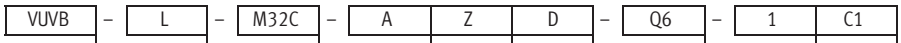
FESTO

Accessories			
		Brief description	→ Page
1	Plug socket with cable with LED KMEB-1-...-LED	For indicating the signal status	4 / 2.4-56
2	Plug socket with cable KMEB-1-230AC-...	Can be used up to 230 V	4 / 2.4-56
3	Plug socket MSSD-EB	–	4 / 2.4-56
4	Plug socket with cable with LED KMEB-2-24-...	For indicating the signal status	4 / 2.4-56
5	Illuminating seal MEB-LD	For indicating the signal status	4 / 2.4-56
6	Cartridge fitting QSPL-...	For connecting compressed air tubing with standard external diameters	4 / 2.4-54
7	Cartridge fitting QSPLL-...	For connecting compressed air tubing with standard external diameters	4 / 2.4-54
8	Cartridge fitting QSP-...	For connecting compressed air tubing with standard external diameters	4 / 2.4-54
9	Adapter NPFA-...	–	4 / 2.4-55
10	Blanking plug QSPC18	For sealing the pneumatic connections on the valve	4 / 2.4-55
11	Retaining clip	For fitting cartridges and blanking plugs (included in the scope of delivery of the cartridge QSP... and the blanking plug QSPC18)	–
12	Cover plate for valve housing VAMC	–	4 / 2.4-52
13	Double solenoid valve VUVB-...-B	–	4 / 2.4-15
14	Inscription label IBS-9x17	For identifying the valves	4 / 2.4-55
15	Single solenoid valve VUVB-...-M	–	4 / 2.4-15
16	Blanking plate/pressure zone supply module VABB/VABF	Blanking plate VABB: for vacant position, with blanking plug Pressure zone supply module VABF: with cartridge fitting	4 / 2.4-52
17	Pilot air supply module	For pilot air supply (included in the scope of delivery of the manifold rail VABM)	–
18	Manifold rail VABM-B6-E-G14-...	Pneumatic connection G¼, for connecting max. 12 valves	4 / 2.4-53
19	Blanking plug B	–	4 / 2.4-55
20	Silencer U, UC	For fitting in exhaust ports	4 / 2.4-55
21	Push-in fitting QS	For connecting compressed air tubing with standard external diameters	4 / 2.4-54
22	Inscription label MH-BZ-80X	For identifying the manifold rail	4 / 2.4-55
23	Manifold rail VABM-B6-E-G12-...	Pneumatic connection G½, for connecting max. 12 valves	4 / 2.4-53
24	H-rail mounting kit VAME	For mounting on the H-rail NRH-35-2000	4 / 2.4-55
25	Separator for pressure zones VABD	For fitting in the manifold rail	4 / 2.4-50

Solenoid valves VUVB

Type codes – Individual valves and manifold valves

FESTO



Valve family	
VUVB	Solenoid valve

Constructional design	
L	In-line valve
S	Semi in-line valve

Valve function	
M32C	3/2-way valve, normally closed
M32U	3/2-way valve, normally open
M42	4/2-way valve, single solenoid
B42	4/2-way valve, double solenoid

Type of reset	
	None (double solenoid)
A	Pneumatic reset

Pilot air supply	
	Internal
Z	External

Manual override facility	
D	Pushing/detenting

Pneumatic connection	
Q4	For tubing O.D. 4 mm
Q6	For tubing O.D. 6 mm
Q8	For tubing O.D. 8 mm
Q10	For tubing O.D. 10 mm
X	Without push-in connector

Operating voltage	
1	24 V DC
2A	110 V AC
3A	230 V AC
5W	12 V DC/24 V AC

Electrical connection	
C1	Plug socket connection pattern to EN 175301-803, type C

Solenoid valves VUVB

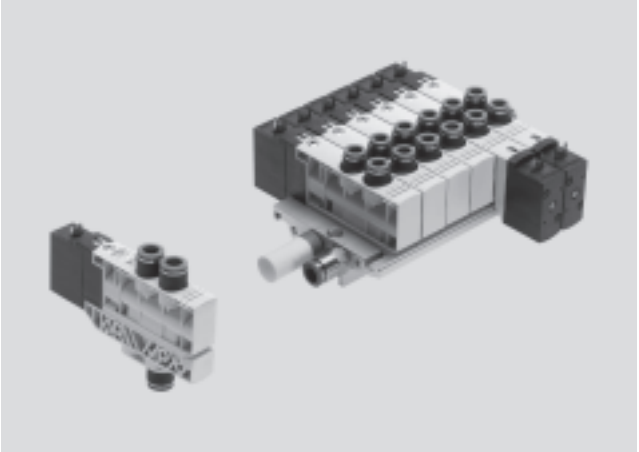
Technical data – Individual valves and manifold valves

FESTO

Voltage
12, 24 V DC
24, 110, 230 V AC

Pressure
–0.9 ... +8 bar

Temperature range
–5 ... +50 °C



General technical data					
Valve function			3/2, single solenoid	4/2, single solenoid	4/2, double solenoid
Constructional design			Piston spool valve		
Sealing principle			Soft		
Type of actuation			Electrical		
Type of reset			Pneumatic spring		–
Type of control			Piloted		
Pilot air supply			Internal or external		
Direction of flow			Non-reversible		
Exhaust function			No flow control		
Manual override facility			Non-detenting, detenting		
Type of mounting			Via through-holes		
Installation position			Any		
Nominal size		[mm]	7		
Standard nominal flow rate	qnN	[l/min]	200 (QS-4), 500 (QS-6), 800 (QS-8), 1,000 (QS-10)		
Width		[mm]	20		
Product weight	In-line valve	[g]	170	170	240
	Semi in-line valve	[g]	150	150	220

Operating and environmental conditions			
Operating medium			Dried and filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm, vacuum
Operating pressure range	Internal pilot air supply	[bar]	2 ... 8
	External pilot air supply	[bar]	–0.9 ... +8
Pilot pressure range		[bar]	2 ... 8
Ambient temperature		[°C]	–5 ... +50
Temperature of medium		[°C]	–5 ... +50
Corrosion resistance class CRC			1[1)]

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

Solenoid valves VUVB

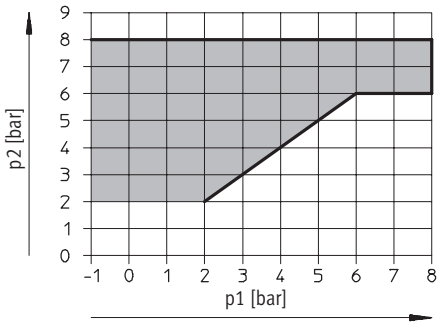
Technical data – Individual valves and manifold valves

FESTO

Electrical data			
Electrical connection			Plug, square design to EN 175301-803, type C
Nominal operating voltage	DC	[V]	12, 24
	AC	[V]	24, 110, 230
Permissible voltage fluctuations			±10%
Electrical power consumption	12 V DC	[W]	1.4
	24 V DC	[W]	1.5
	24 V AC	[VA]	Pull: 3.1, hold: 2.2
	110 V AC	[VA]	Pull: 3.1, hold: 2.2
	230 V AC	[VA]	Pull: 3.1, hold: 2.2
Protection class to EN 60529			IP65 (in combination with plug socket)

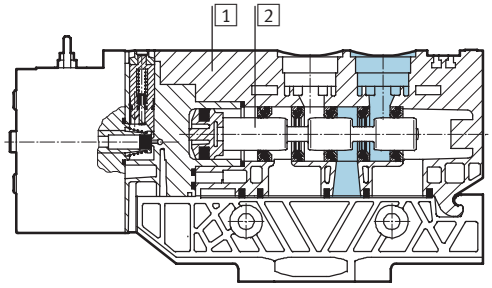
Valve response times [ms]			
Valve function	3/2, single solenoid	4/2, single solenoid	4/2, double solenoid
On	20	20	–
Off	20	20	–
Changeover	–	–	15

Pilot pressure p2 as a function of operating pressure p1

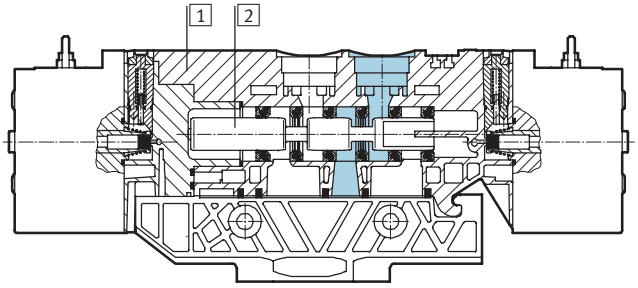


Materials

Sectional view – Single solenoid valve



Sectional view – Double solenoid valve



1	Housing	Reinforced polyamide
2	Piston spool	Wrought aluminium alloy
–	Seals	Nitrile rubber, hydrogenated nitrile rubber, fluorocarbon rubber

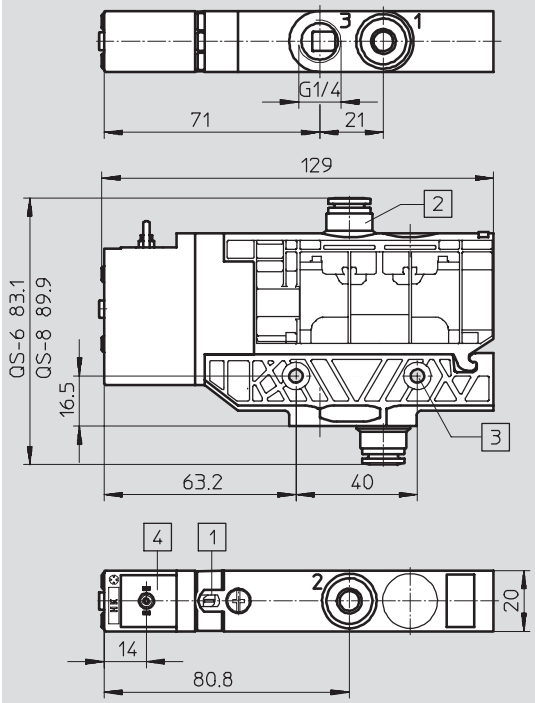
Solenoid valves VUVB

Technical data – Individual valves and manifold valves

FESTO

Dimensions – 3/2-way and 4/2-way valve, single solenoid Download CAD data ➔ **www.festo.com/en/engineering**

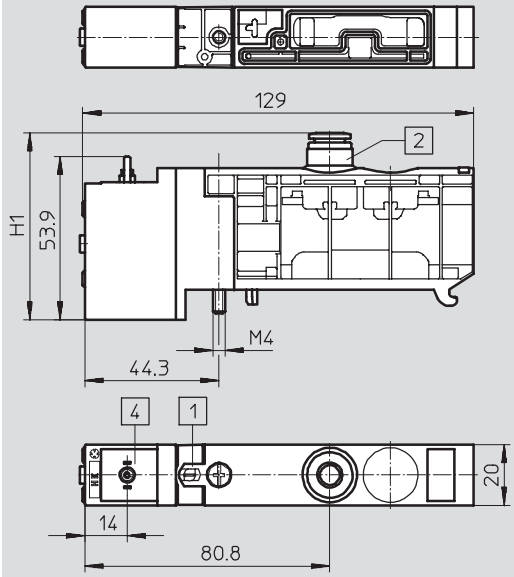
In-line valve



1 Manual override tool
2 Fitting QS-6 or QS-8
3 Through-hole for screw M4
4 Plug socket connection pattern to EN 175301-803, type C

Dimensions – 3/2-way and 4/2-way valve, single solenoid Download CAD data ➔ **www.festo.com/en/engineering**

Semi in-line valve



1 Manual override tool
2 Fitting QS
4 Plug socket connection pattern to EN 175301-803, type C

Pneumatic connection	H1
QS-4	57
QS-6	60

Pneumatic connection	H1
QS-8	63
QS-10	65

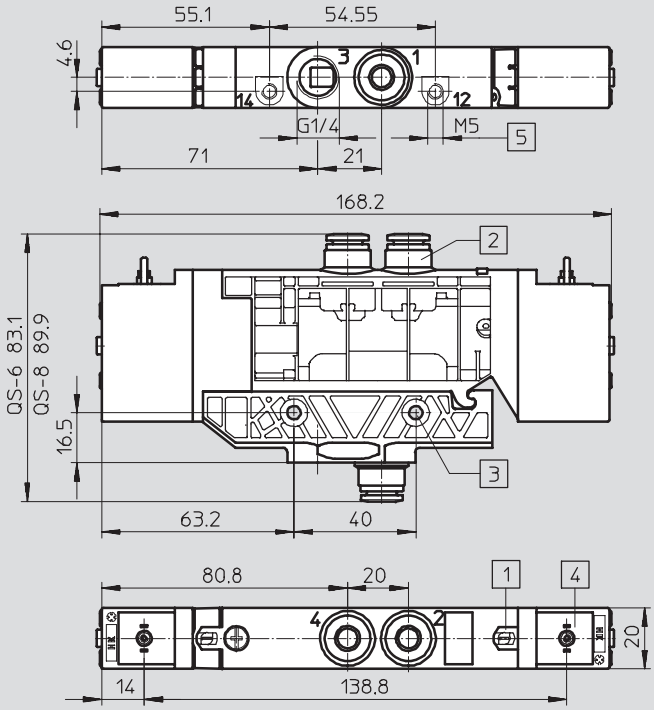
Solenoid valves VUVB

Technical data – Individual valves and manifold valves

FESTO

Dimensions – 4/2-way valve, double solenoid Download CAD data ➔ **www.festo.com/en/engineering**

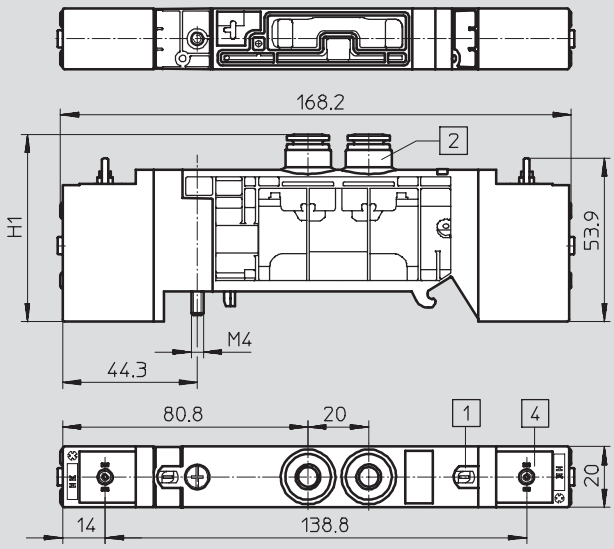
In-line valve



1 Manual override tool
2 Fitting QS-6 or QS-8
3 Through-hole for screw M4
4 Plug socket connection pattern to EN 175301-803, type C
5 Port for external pilot air

Dimensions – 4/2-way valve, double solenoid Download CAD data ➔ **www.festo.com/en/engineering**

Semi in-line valve



1 Manual override tool
2 Fitting QS
4 Plug socket connection pattern to EN 175301-803, type C

Pneumatic connection	H1
QS-4	57
QS-6	60

Pneumatic connection	H1
QS-8	63
QS-10	65

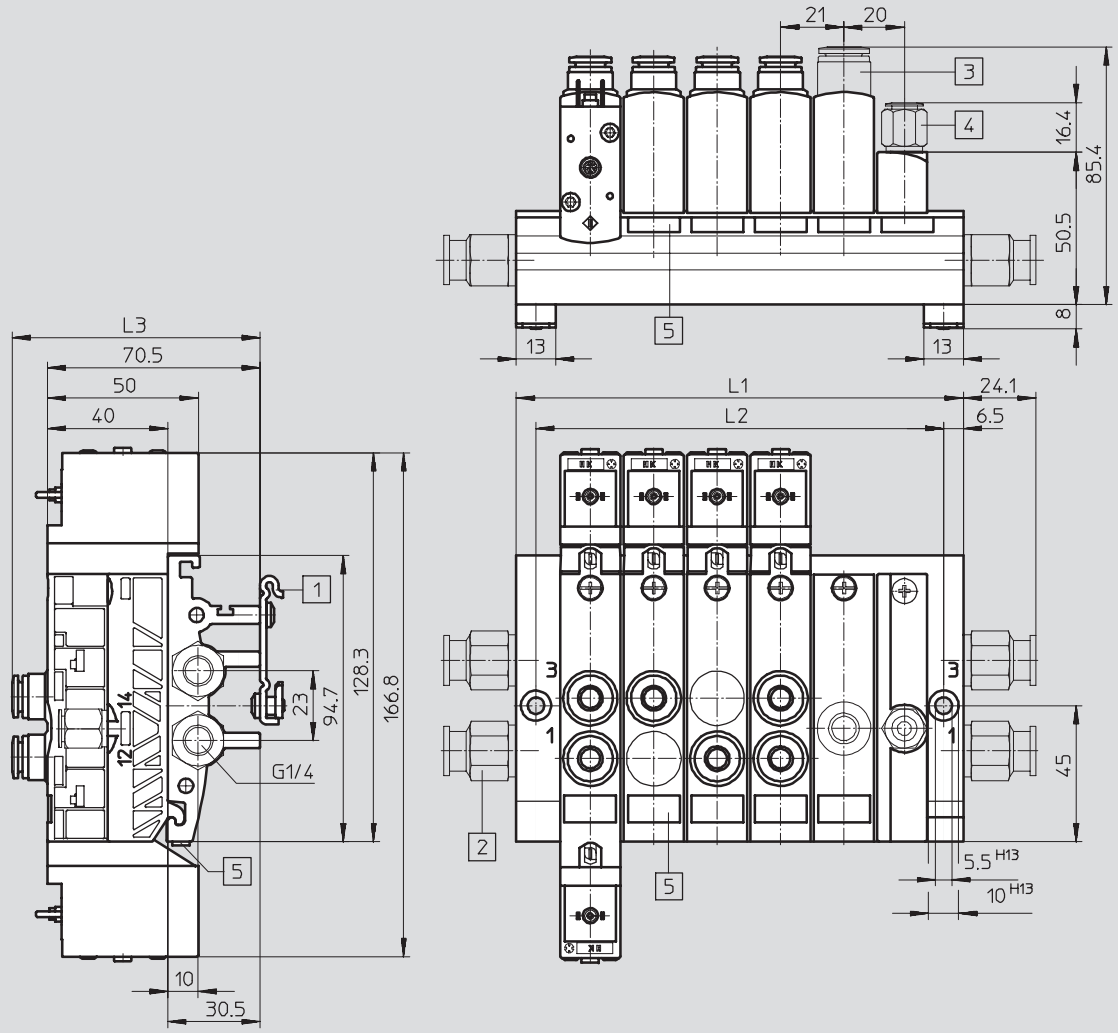
Solenoid valves VUVB

Technical data – Individual valves and manifold valves

FESTO

Dimensions – Manifold assembly Download CAD data ➔ **www.festo.com/en/engineering**

Manifold rail G¼



1 Attachment for mounting rail NRH-35-2000 (optional)

2 Push-in fittings (optional)

3 Cartridge fitting (optional, only with pressure zone supply module)

4 Push-in fitting (optional, only with S types)

5 Inscription label (optional)

Valve positions	L1	L2
2	85	72
3	106	93
4	127	114
5	148	135
6	169	156
7	190	177
8	211	198
9	232	219
10	253	240
11	274	261
12	295	282

Pneumatic connection	L3
QS-4	64.4
QS-6	64.4
QS-8	72
QS-10	75.4

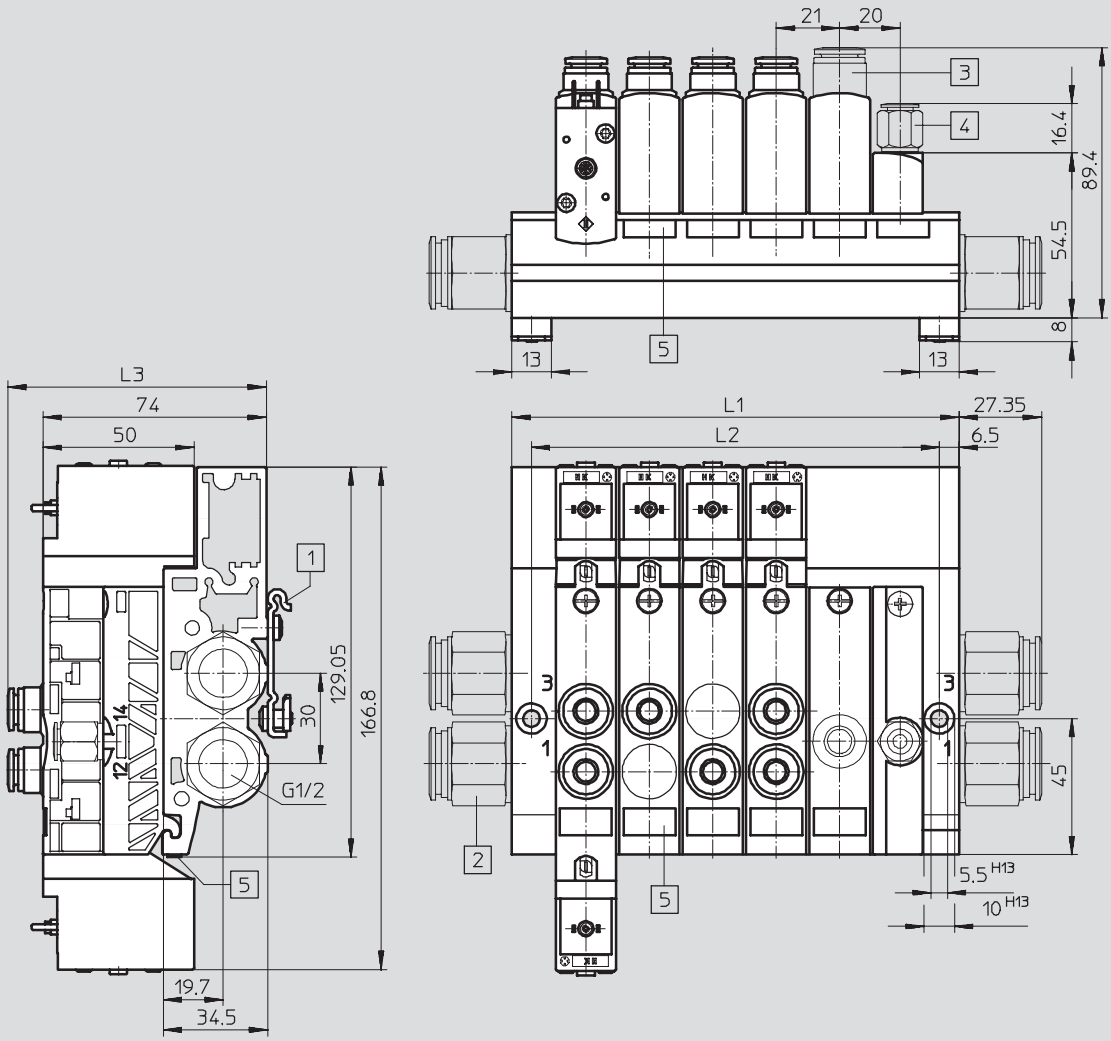
Solenoid valves VUVB

Technical data – Individual valves and manifold valves

FESTO

Dimensions – Manifold assembly Download CAD data ➔ **www.festo.com/en/engineering**

Manifold rail G½



1 Attachment for mounting rail NRH-35-2000 (optional)

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Valve positions	L1	L2
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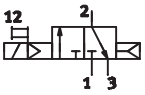
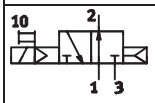
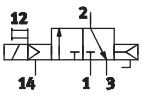
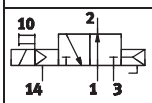
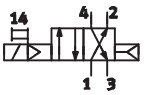
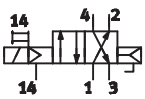
10	253	240
11	274	261
12	295	282

Pneumatic connection	L3
QS-4	78.5
QS-6	78.5
QS-8	86
QS-10	89.4

Solenoid valves VUVB

Technical data – Individual valves and manifold valves

FESTO

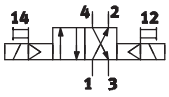
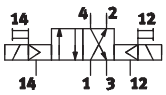
Ordering data – In-line valves						
Circuit symbol	Code	Description	Voltage	Pneumatic connection	Part No.	Type
3/2-way valves						
	–	Normally closed Internal pilot air supply Pneumatic reset	24 V DC	QS-6	**537 468**	**VUVB-L-M32C-AD-Q6-1C1**
				QS-8	**537 469**	**VUVB-L-M32C-AD-Q8-1C1**
			110 V AC	QS-6	**537 538**	**VUVB-L-M32C-AD-Q6-2AC1**
				QS-8	**537 539**	**VUVB-L-M32C-AD-Q8-2AC1**
			230 V AC	QS-6	**537 546**	**VUVB-L-M32C-AD-Q6-3AC1**
				QS-8	**537 547**	**VUVB-L-M32C-AD-Q8-3AC1**
	–	Normally open Internal pilot air supply Pneumatic reset	24 V DC	QS-6	**537 470**	**VUVB-L-M32U-AD-Q6-1C1**
				QS-8	**537 471**	**VUVB-L-M32U-AD-Q8-1C1**
			110 V AC	QS-6	**537 540**	**VUVB-L-M32U-AD-Q6-2AC1**
				QS-8	**537 541**	**VUVB-L-M32U-AD-Q8-2AC1**
			230 V AC	QS-6	**537 548**	**VUVB-L-M32U-AD-Q6-3AC1**
				QS-8	**537 549**	**VUVB-L-M32U-AD-Q8-3AC1**
	–	Normally closed External pilot air supply Pneumatic reset	24 V DC	QS-6	**537 476**	**VUVB-L-M32C-AZD-Q6-1C1**
				QS-8	**537 477**	**VUVB-L-M32C-AZD-Q8-1C1**
			110 V AC	QS-6	**537 554**	**VUVB-L-M32C-AZD-Q6-2AC1**
				QS-8	**537 555**	**VUVB-L-M32C-AZD-Q8-2AC1**
			230 V AC	QS-6	**537 562**	**VUVB-L-M32C-AZD-Q6-3AC1**
				QS-8	**537 563**	**VUVB-L-M32C-AZD-Q8-3AC1**
	–	Normally open External pilot air supply Pneumatic reset	24 V DC	QS-6	**537 478**	**VUVB-L-M32U-AZD-Q6-1C1**
				QS-8	**537 479**	**VUVB-L-M32U-AZD-Q8-1C1**
			110 V AC	QS-6	**537 556**	**VUVB-L-M32U-AZD-Q6-2AC1**
				QS-8	**537 557**	**VUVB-L-M32U-AZD-Q8-2AC1**
			230 V AC	QS-6	**537 564**	**VUVB-L-M32U-AZD-Q6-3AC1**
				QS-8	**537 565**	**VUVB-L-M32U-AZD-Q8-3AC1**
4/2-way valves, single solenoid						
	–	Internal pilot air supply Pneumatic reset	24 V DC	QS-6	**537 472**	**VUVB-L-M42-AD-Q6-1C1**
				QS-8	**537 473**	**VUVB-L-M42-AD-Q8-1C1**
			110 V AC	QS-6	**537 542**	**VUVB-L-M42-AD-Q6-2AC1**
				QS-8	**537 543**	**VUVB-L-M42-AD-Q8-2AC1**
			230 V AC	QS-6	**537 550**	**VUVB-L-M42-AD-Q6-3AC1**
				QS-8	**537 551**	**VUVB-L-M42-AD-Q8-3AC1**
	–	External pilot air supply Pneumatic reset	24 V DC	QS-6	**537 480**	**VUVB-L-M42-AZD-Q6-1C1**
				QS-8	**537 481**	**VUVB-L-M42-AZD-Q8-1C1**
			110 V AC	QS-6	**537 558**	**VUVB-L-M42-AZD-Q6-2AC1**
				QS-8	**537 559**	**VUVB-L-M42-AZD-Q8-2AC1**
			230 V AC	QS-6	**537 566**	**VUVB-L-M42-AZD-Q6-3AC1**
				QS-8	**537 567**	**VUVB-L-M42-AZD-Q8-3AC1**

Solenoid valves VUVB

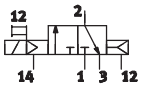
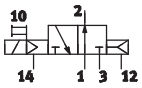
Technical data – Individual valves and manifold valves

FESTO

Ordering data – In-line valves

Circuit symbol	Code	Description	Voltage	Pneumatic connection	Part No.	Type
4/2-way valves, double solenoid						
	–	Internal pilot air supply	24 V DC	QS-6	**537 474**	**VUVB-L-B42-D-Q6-1C1**
				QS-8	**537 475**	**VUVB-L-B42-D-Q8-1C1**
			110 V AC	QS-6	**537 444**	**VUVB-L-B42-D-Q6-2AC1**
				QS-8	**537 445**	**VUVB-L-B42-D-Q8-2AC1**
			230 V AC	QS-6	**537 552**	**VUVB-L-B42-D-Q6-3AC1**
				QS-8	**537 553**	**VUVB-L-B42-D-Q8-3AC1**
	–	External pilot air supply	24 V DC	QS-6	**537 482**	**VUVB-L-B42-ZD-Q6-1C1**
				QS-8	**537 483**	**VUVB-L-B42-ZD-Q8-1C1**
			110 V AC	QS-6	**537 560**	**VUVB-L-B42-ZD-Q6-2AC1**
				QS-8	**537 561**	**VUVB-L-B42-ZD-Q8-2AC1**
			230 V AC	QS-6	**537 568**	**VUVB-L-B42-ZD-Q6-3AC1**
				QS-8	**537 569**	**VUVB-L-B42-ZD-Q8-3AC1**

Ordering data – Semi in-line valves for sub-base or manifold rail

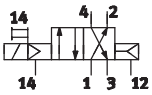
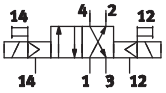
Circuit symbol	Code	Description	Voltage	Pneumatic connection	Part No.	Type
3/2-way valves						
	K	Normally closed Pilot air supply[1)] Pneumatic reset	24 V DC	QS-4	**537 484**	**VUVB-S-M32C-AZD-Q4-1C1**
				QS-6	**537 485**	**VUVB-S-M32C-AZD-Q6-1C1**
				QS-8	**537 486**	**VUVB-S-M32C-AZD-Q8-1C1**
				QS-10	**537 487**	**VUVB-S-M32C-AZD-Q10-1C1**
			110 V AC	QS-4	**537 570**	**VUVB-S-M32C-AZD-Q4-2AC1**
				QS-6	**537 571**	**VUVB-S-M32C-AZD-Q6-2AC1**
				QS-8	**537 572**	**VUVB-S-M32C-AZD-Q8-2AC1**
				QS-10	**537 573**	**VUVB-S-M32C-AZD-Q10-2AC1**
			230 V AC	QS-4	**537 586**	**VUVB-S-M32C-AZD-Q4-3AC1**
				QS-6	**537 587**	**VUVB-S-M32C-AZD-Q6-3AC1**
				QS-8	**537 588**	**VUVB-S-M32C-AZD-Q8-3AC1**
				QS-10	**537 589**	**VUVB-S-M32C-AZD-Q10-3AC1**
	N	Normally open Pilot air supply[1)] Pneumatic reset	24 V DC	QS-4	**537 488**	**VUVB-S-M32U-AZD-Q4-1C1**
				QS-6	**537 489**	**VUVB-S-M32U-AZD-Q6-1C1**
				QS-8	**537 490**	**VUVB-S-M32U-AZD-Q8-1C1**
				QS-10	**537 491**	**VUVB-S-M32U-AZD-Q10-1C1**
			110 V AC	QS-4	**537 574**	**VUVB-S-M32U-AZD-Q4-2AC1**
				QS-6	**537 575**	**VUVB-S-M32U-AZD-Q6-2AC1**
				QS-8	**537 576**	**VUVB-S-M32U-AZD-Q8-2AC1**
				QS-10	**537 577**	**VUVB-S-M32U-AZD-Q10-2AC1**
			230 V AC	QS-4	**537 590**	**VUVB-S-M32U-AZD-Q4-3AC1**
				QS-6	**537 591**	**VUVB-S-M32U-AZD-Q6-3AC1**
				QS-8	**537 592**	**VUVB-S-M32U-AZD-Q8-3AC1**
				QS-10	**537 593**	**VUVB-S-M32U-AZD-Q10-3AC1**

1) Internal/external depending on the individual sub-base or the installation position of the selector in the pressure zone supply module.

Solenoid valves VUVB

Technical data – Individual valves and manifold valves

FESTO

Ordering data – Semi in-line valves for sub-base or manifold rail						
Circuit symbol	Code	Description	Voltage	Pneumatic connection	Part No.	Type
4/2-way valves, single solenoid						
	M	Pilot air supply[1)] Pneumatic reset	24 V DC	QS-4	**537 492**	**VUVB-S-M42-AZD-Q4-1C1**
				QS-6	**537 493**	**VUVB-S-M42-AZD-Q6-1C1**
				QS-8	**537 494**	**VUVB-S-M42-AZD-Q8-1C1**
				QS-10	**537 495**	**VUVB-S-M42-AZD-Q10-1C1**
				without push-in connector	**537 534**	**VUVB-S-M42-AZD-QX-1C1**
			110 V AC	QS-4	**537 578**	**VUVB-S-M42-AZD-Q4-2AC1**
				QS-6	**537 579**	**VUVB-S-M42-AZD-Q6-2AC1**
				QS-8	**537 580**	**VUVB-S-M42-AZD-Q8-2AC1**
				QS-10	**537 581**	**VUVB-S-M42-AZD-Q10-2AC1**
				without push-in connector	**537 632**	**VUVB-S-M42-AZD-QX-2AC1**
			230 V AC	QS-4	**537 594**	**VUVB-S-M42-AZD-Q4-3AC1**
				QS-6	**537 595**	**VUVB-S-M42-AZD-Q6-3AC1**
				QS-8	**537 596**	**VUVB-S-M42-AZD-Q8-3AC1**
				QS-10	**537 597**	**VUVB-S-M42-AZD-Q10-3AC1**
				without push-in connector	**537 636**	**VUVB-S-M42-AZD-QX-3AC1**
			12 V DC/ 24 V AC	without push-in connector	**545 376**	**VUVB-S-M42-AZD-QX-5WC1**
4/2-way valves, double solenoid						
	J	Pilot air supply[1)]	24 V DC	QS-4	**537 496**	**VUVB-S-B42-ZD-Q4-1C1**
				QS-6	**537 497**	**VUVB-S-B42-ZD-Q6-1C1**
				QS-8	**537 498**	**VUVB-S-B42-ZD-Q8-1C1**
				QS-10	**537 499**	**VUVB-S-B42-ZD-Q10-1C1**
				without push-in connector	**537 535**	**VUVB-S-B42-ZD-QX-1C1**
			110 V AC	QS-4	**537 582**	**VUVB-S-B42-ZD-Q4-2AC1**
				QS-6	**537 583**	**VUVB-S-B42-ZD-Q6-2AC1**
				QS-8	**537 584**	**VUVB-S-B42-ZD-Q8-2AC1**
				QS-10	**537 585**	**VUVB-S-B42-ZD-Q10-2AC1**
				without push-in connector	**537 633**	**VUVB-S-B42-ZD-QX-2AC1**
			230 V AC	QS-4	**537 598**	**VUVB-S-B42-ZD-Q4-3AC1**
				QS-6	**537 599**	**VUVB-S-B42-ZD-Q6-3AC1**
				QS-8	**537 600**	**VUVB-S-B42-ZD-Q8-3AC1**
				QS-10	**537 601**	**VUVB-S-B42-ZD-Q10-3AC1**
				without push-in connector	**537 637**	**VUVB-S-B42-ZD-QX-3AC1**
			12 V DC/ 24 V AC	without push-in connector	**545 377**	**VUVB-S-B42-ZD-QX-5WC1**

1) Internal/external depending on the individual sub-base or the installation position of the selector in the pressure zone supply module.

Solenoid valves VUVB

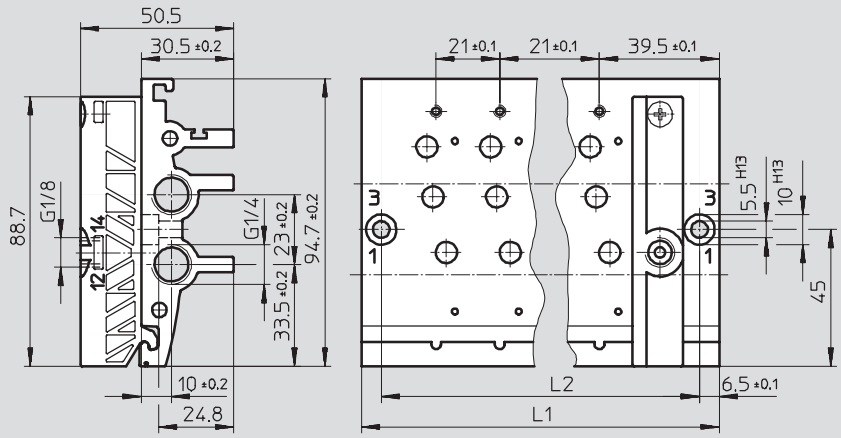
Technical data – Manifold rail

FESTO

Manifold rail G¼
VABM

Material:
Wrought aluminium alloy

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



Dimensions and ordering data

Valve positions	L1	L2	Weight [g]	CRC	Part No.	Type
2	85	72	270	2[1)]	**537 500**	**VABM-B6-E-G14-2**
3	106	93	340	2[1)]	**545 815**	**VABM-B6-E-G14-3**
4	127	114	400	2[1)]	**537 501**	**VABM-B6-E-G14-4**
5	148	134	470	2[1)]	**545 816**	**VABM-B6-E-G14-5**
6	169	156	530	2[1)]	**537 502**	**VABM-B6-E-G14-6**
7	190	177	600	2[1)]	**545 817**	**VABM-B6-E-G14-7**
8	211	198	670	2[1)]	**537 503**	**VABM-B6-E-G14-8**
9	232	219	740	2[1)]	**545 818**	**VABM-B6-E-G14-9**
10	253	240	800	2[1)]	**537 504**	**VABM-B6-E-G14-10**
11	274	261	870	2[1)]	**545 819**	**VABM-B6-E-G14-11**
12	295	282	940	2[1)]	**537 505**	**VABM-B6-E-G14-12**

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

Solenoid valves VUVB

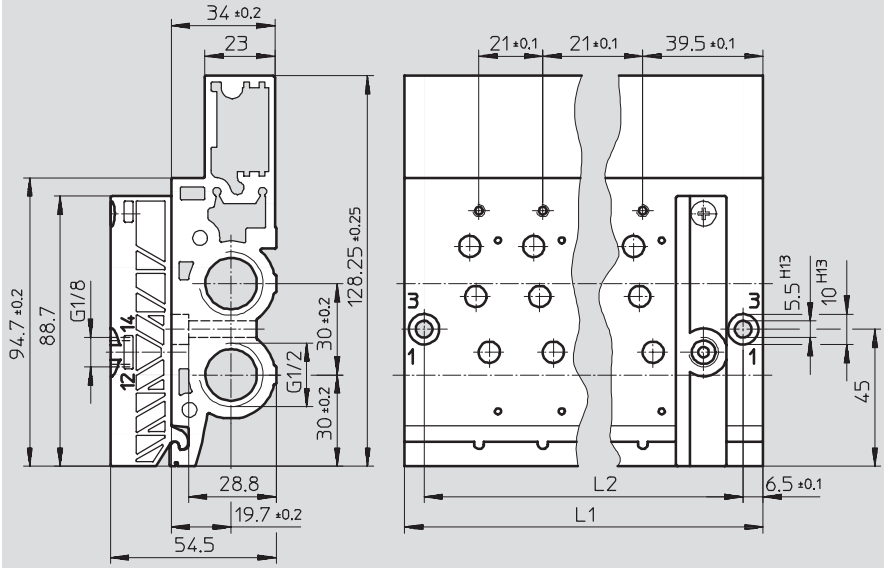
Technical data – Manifold rail

FESTO

Manifold rail G½
VABM

Material:
Wrought aluminium alloy

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



Dimensions and ordering data

Valve positions	L1	L2	Weight [g]	CRC	Part No.	Type
2	85	72	460	2 [1)]	**537 506**	**VABM-B6-E-G12-2**
3	106	93	580	2 [1)]	**545 820**	**VABM-B6-E-G12-3**
4	127	114	690	2 [1)]	**537 507**	**VABM-B6-E-G12-4**
5	148	135	820	2 [1)]	**545 821**	**VABM-B6-E-G12-5**
6	169	156	915	2 [1)]	**537 508**	**VABM-B6-E-G12-6**
7	190	177	1,030	2 [1)]	**545 822**	**VABM-B6-E-G12-7**
8	211	198	1,150	2 [1)]	**537 509**	**VABM-B6-E-G12-8**
9	232	219	1,270	2 [1)]	**545 823**	**VABM-B6-E-G12-9**
10	253	240	1,380	2 [1)]	**537 510**	**VABM-B6-E-G12-10**
11	274	261	1,500	2 [1)]	**545 824**	**VABM-B6-E-G12-11**
12	295	282	1,620	2 [1)]	**537 511**	**VABM-B6-E-G12-12**

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

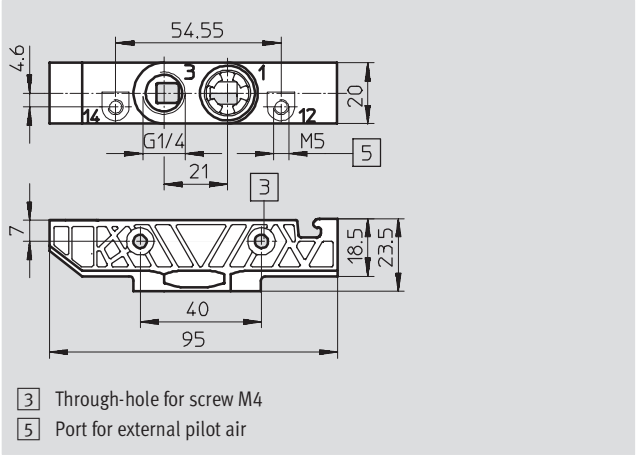
Solenoid valves VUVB

Technical data – Sub-base

FESTO

Sub-base VABS

Material:
Reinforced polyamide



3 Through-hole for screw M4
5 Port for external pilot air

Valve terminals VTUB – Individual connection

Ordering data – Modular products

FESTO

M Mandatory data					O Options	M		O →
Module No.	**Product type**	**Electrical connection**	**Individual connection type**	**Valve type**	**Valve design**	**Nominal operating voltage**	**Manual override facility**	**Pilot air supply**
537 662	VTUB	S	ET	S	– C	1 2A 3A 5W	D	– Z
Ordering example								
537 662	**VTUB**	**S**	**ET**	**S**		**2A**	**D**	
1	2	3	4	5	6	7	8	9

Ordering table

				Conditions	Code		Enter code
M	1	Module No.	**537 662**				
	2	Product type	Valve terminal		**VTUB**		VTUB
	3	Electrical connection	Individual connection		**-S**		-S
	4	Individual connection type	Blade connectors		**ET**		ET
	5	Valve type	Semi in-line valve		**-S**		-S
O	6	Valve design	Without cover plate				
			With cover plate		**C**		
M	7	Nominal operating voltage	24 V DC		**1**		
			110 V AC		**2A**		
			230 V AC		**3A**		
			12 V DC/ 24 V AC		**5W**		
	8	Manual override facility	Detenting		**D**		D
O ↓	9	Pilot air supply	Internal				
			External		**Z**		

Transfer order code

537 662	**VTUB**	**–**	**S**	**ET**	**–**	**S**				**D**	
1	2		3	4		5	6	7	8	9	

Valve terminals VTUB – Individual connection

Ordering data – Modular products

FESTO

	M Mandatory data	O Options	M	O	M		
	Pressure supply connection	Pressure supply connection position	Exhaust connection	Exhaust connection position	Valve connection	Valve connection position	Manifold rail
	G14 G12 Q10 Q12 Q16	– L R	D U1	– L R	P4 P6 P8 P10	T TB TA TC	A B
–	G12		U1		P10	T	B
	10	11	12	13	14	15	16

Ordering table

				Conditions	Code		Enter code
M	10	Pressure supply connection	Thread G¼		-G14		
			Thread G½		-G12		
			Push-in connector 10 mm		-Q10		
			Push-in connector 12 mm		-Q12		
			Push-in connector 16 mm		-Q16		
O	11	Pressure supply connection position	At both ends				
			Left-hand end		L		
			Right-hand end		R		
M	12	Exhaust connection	Ducted (corresponds to the pressure supply connection)		-D		
			Silencer		-U1		
O	13	Exhaust connection position	At both ends				
			Left-hand end	1	L		
			Right-hand end	1	R		
M	14	Valve connection	Push-in connector 4 mm		-P4		
			Push-in connector 6 mm		-P6		
			Push-in connector 8 mm		-P8		
			Push-in connector 10 mm		-P10		
	15	Valve connection position	On top, straight		T		
			On top, angled outlet to the front/rear	2	TB		
			On top, angled outlet to the front	2	TA		
			On top, angled outlet to the rear	2	TC		
	16	Manifold rail	Size 1 (G¼)	3	-A		
			Size 2 (G½)	4	-B		

1 **L, R** Only with pressure supply connection position (11) L, R

2 **TB, TA, TC** Not with valve connection (14) P10 (push-in connector 10 mm)

3 **A** Not with pressure supply connection (10) G12, Q16

4 **B** Not with pressure supply connection (10) G14

Transfer order code

–			–		–			–	
	10	11		12		13	14	15	16

Valve terminals VTUB – Individual connection

Ordering data – Modular products

FESTO

➔ M **Mandatory data**

Valve position 0 ... 11

17 Position function 0 ... 11: K, N, M, J, S, L

O **Options**

18 Duct separation 0 ... 10: TP, TS, TR

O **Options**

Assembly accessories

H

Electrical accessories

C
C1
C2

Valve position

	0	1	2	3	4	5	6	7	8	9	10	11			
–	J	K	N TR	J	S	K							–	H	– C2
	17 + 18													19	20

Ordering table

				Conditions	Code		Enter code
		Valve position 0 ... 11		5	-		-
M	17	Position function 0 ... 11	3/2-way valve, normally closed		K		Enter the equipment selected in the ordering code
			3/2-way valve, normally open		N		
			4/2-way valve, single solenoid, pneumatic spring		M		
			4/2-way valve, double solenoid		J		
			Additional power supply		S		
			Blanking plate		L		
O	18	Duct separation 0 ... 10	Separator 1	6	TP		
			Separator 1, 3	6	TS		
			Separator 3	6	TR		
O	19	Assembly accessories					
		Type of mounting	H-rail mounting		-H		
	20	Electrical accessories					
		Valve connection	Plug socket		-C		
			Connecting cable 2.5 m		-C1		
			Connecting cable 5 m		-C2		

5 Permissible number of valves: 2, 3, 4, ... 12

6 **TP, TS, TR** Only with pressure supply connection position (11) "At both ends" and exhaust connection position (13) "At both ends".
Possible only once per valve terminal.

Transfer order code

Valve position

	0	1	2	3	4	5	6	7	8	9	10	11			
–													–		–
	17 + 18													19	20

Valve terminals type 24 VTUB

Peripherals overview

FESTO

Overview – Valve terminal type 24 VTUB

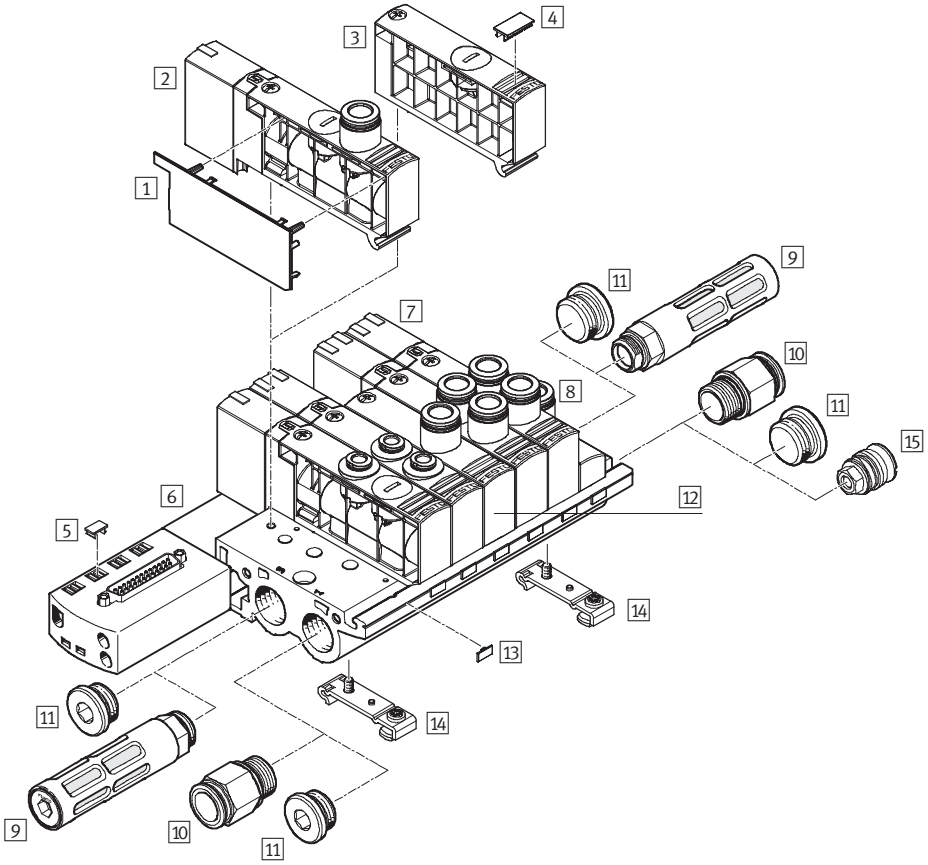
Valve terminal with electrical multi-pin plug connection

- 25-pin Sub-D multi-pin plug connection
  Code: SD

Valve terminals with electrical multi-pin plug connection are available in gradations from 2 to max. 12 valve positions.

Each valve position can either be equipped with a valve or a blanking plate.

A maximum of 24 valve solenoid coils can be actuated via the electrical multi-pin plug connection.



Valve terminals type 24 VTUB

Peripherals overview

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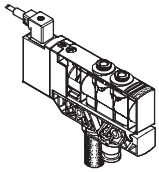
Accessories			
		Brief description	→ Page
1	Cover plate for valve housing VAMC	–	4 / 2.4-52
2	Single solenoid valve VUVB-...-M	–	4 / 2.4-39
3	Blanking plate VABB	Blanking plate VABB: for vacant position, with blanking plug	4 / 2.4-52
4	Inscription label IBS-9x17	For identifying the valves	4 / 2.4-55
5	Inscription label IBS-6x10	–	4 / 2.4-55
6	Manifold rail VABM-B6-E-G...-6-M1	With multi-pin plug connection, for connecting max. 12 valves	4 / 2.4-53
7	Double solenoid valve VUVB-...-B	–	4 / 2.4-39
8	Pilot air supply module	For pilot air supply (included in the scope of delivery of the manifold rail VABM)	–
9	Silencer U, UC	For fitting in exhaust ports	4 / 2.4-55
10	Push-in fitting QS	For connecting compressed air tubing with standard external diameters	4 / 2.4-54
11	Blanking plug B	–	4 / 2.4-55
12	Pressure zone supply module VABF	Pressure zone supply module VABF: with cartridge	4 / 2.4-52
13	Inscription label MH-BZ-80X	For identifying the manifold rail	4 / 2.4-55
14	H-rail mounting kit VAME	For mounting on the H-rail NRH-35-2000	4 / 2.4-55
15	Separator for pressure zones VABD	For mounting in the manifold rail	4 / 2.4-50

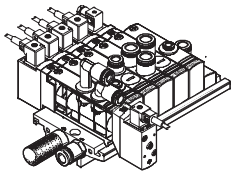
Valve terminals type 24 VTUB

Key features

FESTO

Individual connection



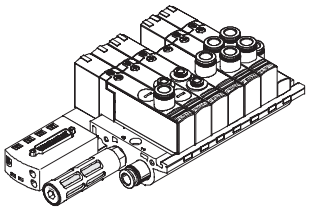


Connection is independent of the control technology used.
There are two different valve types, in-line valves and semi in-line valves for manifold rails or individual sub-bases.
Between 2 ... 24 solenoid coils (divided between 2 ... 12 valve positions) can be selected with individual connection.

Valves can be used on individual sub-bases for actuators further away from the valve terminal.
With an individual electrical connection, the plug is connected directly to the valve. A number of plug sockets/ plug sockets with cable can be selected for the valve terminal and for the individual sub-base:

- KMEB-1-...-LED with signal status display
- KMEB-1-230AC-... can be used up to 230 V AC
- MSSD-EB for self-assembly
- KMEB-2-24-... with signal status display
- Illuminating seal MEB-LD for signal status display

Multi-pin plug connection



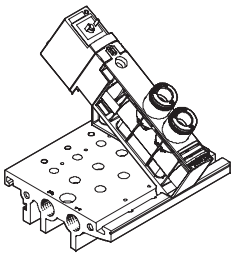
Control signals from the controller to the valve terminal are transmitted via a pre-assembled multi-wire cable, which substantially reduces installation time.

This valve terminal can be fitted with 4 ... 12 valves.

Variants
- Sub-D connection

Double solenoid drive with multi-pin plug connection. The valve is equipped with an LED for displaying the signal status.

Wide range of pneumatic components

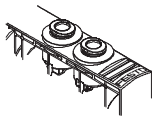
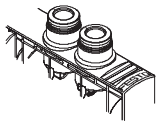
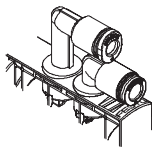


- The use of the same basic valves for both the individual valves and the valve manifold permits fast and flexible conversion and multiple use of parts.
- Flexible construction thanks to assembled and tested units or individual components as modules for individual configurations.
- Flow rates from 200 ... 1,000 l/min depending on the respective application through the selection of appropriate QS connections.

Valve terminals type 24 VTUB

Key features – Pneumatic components

FESTO

Connection on the valve		
	Code	Description
Code for valve connection position: T		
	P4	Push-in connector 4 mm Connection position on top, straight
	P6	Push-in connector 6 mm Connection position on top, straight
	P8	Push-in connector 8 mm Connection position on top, straight
	P10	Push-in connector 10 mm Connection position on top, straight
Code for valve connection position: TB, TA, TC		
	P4	Push-in connector 4 mm Connection position on top, angled outlet to the front/rear, front, rear
	P6	Push-in connector 6 mm Connection position on top, angled outlet to the front/rear, front, rear
	P8	Push-in connector 8 mm Connection position on top, angled outlet to the front/rear, front, rear

Valve terminals type 24 VTUB

Key features – Pneumatic components

FESTO

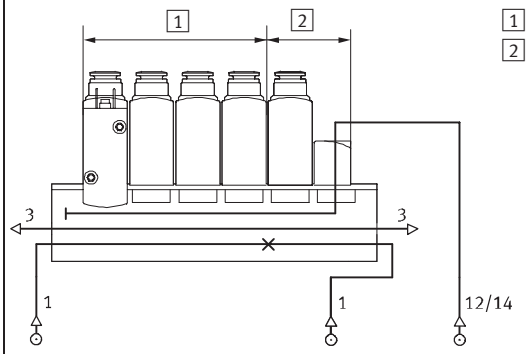
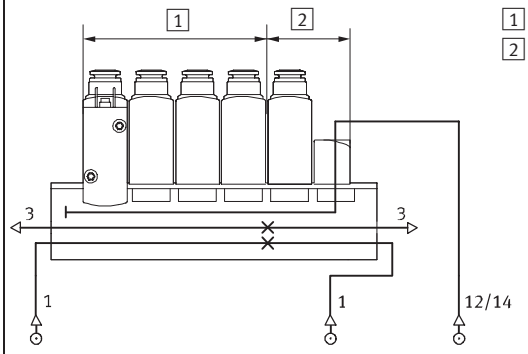
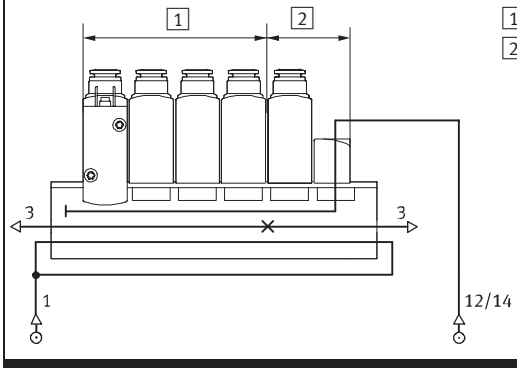
Instructions for using pressure zones

The VTUB valve terminal can be operated with 2 pressure zones, supplied either from the left or from the right.

Pressure zones are created by means of separators that can be used in the following ducts:

- Supply duct 1 (code TP)
  or
- Supply duct 1
  and exhaust duct 3 (code TS) or
- Exhaust duct 3 (code TR)

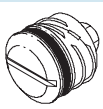
Duct separation

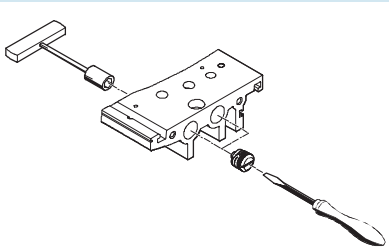
	Code	Description
 1 Pressure zone 1 2 Pressure zone 2	TP	Duct 1 closed
 1 Pressure zone 1 2 Pressure zone 2	TS	Duct 1/3 closed
 1 Pressure zone 1 2 Pressure zone 2	TR	Duct 3 closed

Separator VABD-B6

Note

The separator can also be fitted subsequently using a screwdriver/ socket spanner.



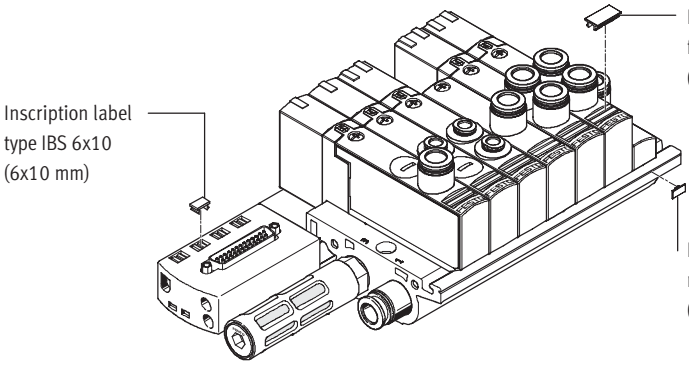


Valve terminals type 24 VTUB

Key features – Display and operation

FESTO

Inscription system



Inscription labels can be applied to the valves and manifold rails to identify them.

- Inscription labels
  for valve type IBS-9x17
  Part No. 161 937
- Inscription labels for manifold rail
  type MH-BZ-80X
  Part No. 197 259

Display and operation

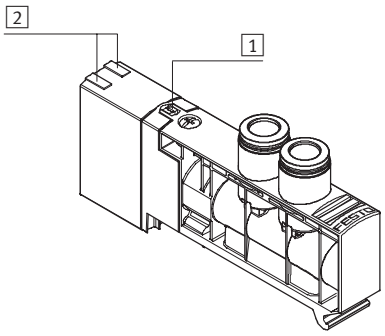
Each valve solenoid coil can be allocated an LED which indicates its signal status. Suitable plug sockets with cable can be found on page 4 / 2.4-56. The multi-pin variant has the LED integrated in the valve.

The manual override (MO) allows the valve to be activated without electronic control or power supply.

The valve is activated by pushing the manual override. The set switching status can be secured by rotating the manual override.

- Note

A manually activated valve (manual override) cannot be reset electrically. Conversely, an electrically activated valve cannot be reset using the mechanical manual override.



1 Optional manual override (pushing and detenting via turning using a screwdriver)
2 LED signal status display per solenoid coil

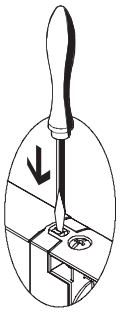
Valve terminals type 24 VTUB

Key features – Display and operation

FESTO

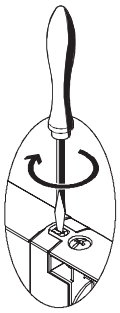
Manual override (MO)

MO with automatic return (non-detenting)



Press in the stem of the MO with a pin or screwdriver.
⇢ Valve is in switching position
Remove the pin or screwdriver.
Spring force pushes the stem of the MO back.
⇢ Valve returns to normal position.

MO with detent (turning with detent)[1)]



Press in the stem of the MO using a pin or screwdriver until the valve switches and then turn the stem clockwise by 90° until the stop is reached.
⇢ Valve remains in switching position
Turn the stem anti-clockwise by 90° until the stop is reached and then remove the pin or screwdriver.
Spring force pushes the stem of the MO back.
⇢ Valve returns to normal position.

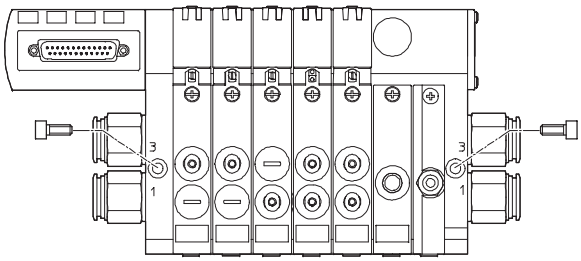
1) Not with double solenoid valve code J for electrical multi-pin plug connection (double solenoid valve)

Mounting – Valve terminal

Sturdy terminal assembly thanks to:

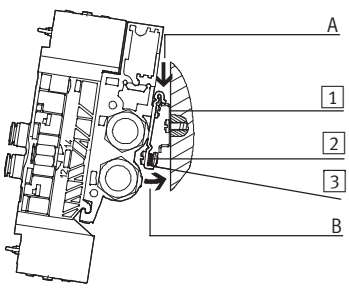
- Two through-holes for wall mounting
- Integrated attachment for H-rail mounting

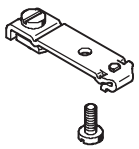
Wall mounting



The VTUB valve terminal is screwed onto the mounting surface using two M5 screws.

H-rail mounting





The VTUB valve terminal is hooked onto the H-rail (see arrow A).
The valve terminal VTUB is then swivelled on the H-rail and secured in place with the clamping component (see arrow B).

1 H-rail
2 Self-tapping M4x8 screw of the H-rail clamping unit
3 Clamping component of the H-rail clamping unit

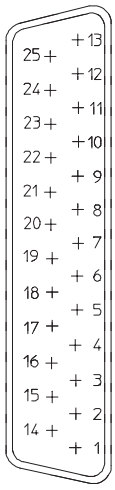
For H-rail mounting of the valve terminal you will need the VAME-B6-T mounting kit. This permits mounting of the valve terminal on a H-rail to EN 60715.

Valve terminals type 24 VTUB

Key features – Electrical components/instructions for use

FESTO

Pin allocation – Sub-D plug

	Connecting cable, 25-wire			Connecting cable, 15-wire		
	Pin	Address/coil	Core colour[1)]	Pin	Address/coil	Core colour[1)]
	1	0	WH	1	0	WH
	2	1	BN	2	1	BN
	3	2	GN	3	2	GN
	4	3	YE	4	3	YE
	5	4	GY	5	4	GY
	6	5	PK	6	5	PK
	7	6	BU	7	6	BU
	8	7	RD	8	7	RD
	9	8	BK	9	8	BK
	10	9	VT	10	9	VT
	11	10	GY PK	11	10	GY PK
	12	11	RD BU	12	11	RD BU
	13	12	GN WH	13	–	–
	14	13	BN GN	14	–	–
	15	14	YE WH	15	–	–
	16	15	BN YE	16	–	–
	17	16	GY WH	17	–	–
	18	17	BN GY	18	–	–
	19	18	WH PK	19	–	–
	20	19	BN PK	20	–	–
	21	20	BU WH	21	–	–
	22	21	BN BU	22	–	–
Note	23	22	RD WH	23	–	RD WH
The drawing shows the view onto the pins of the Sub-D plug.	24	23	BN RD	24	–	BN RD
	25	0 V	BK WH	25	0 V	BK WH

1) To IEC 757

Equipment

Operate your equipment with unlubricated compressed air if possible. Festo valves and cylinders are designed for operation under normal use without any additional lubrication, yet still have a long service life. The quality of compressed air downstream from the compressor must correspond to that of unlubricated compressed air. If possible, do not operate all of your equipment with lubricated compressed air. The lubricators should, where possible, always be installed directly upstream of the actuator used.

Incorrect additional oil and too high an oil content in the compressed air reduce the service life of the valve terminal.
Use Festo special oil OFSW-32 or the alternatives listed in the Festo catalogue (as specified in DIN 51524-HLP32; basic oil viscosity 32 CST at 40 °C).

Bio-oils

When using bio-oils (oils which are based upon synthetic or native ester, e.g. rapeseed oil methyl ester), the maximum residual oil content of 0.1 mg/m^3 must not be exceeded (see ISO 8573-1 Class 2).

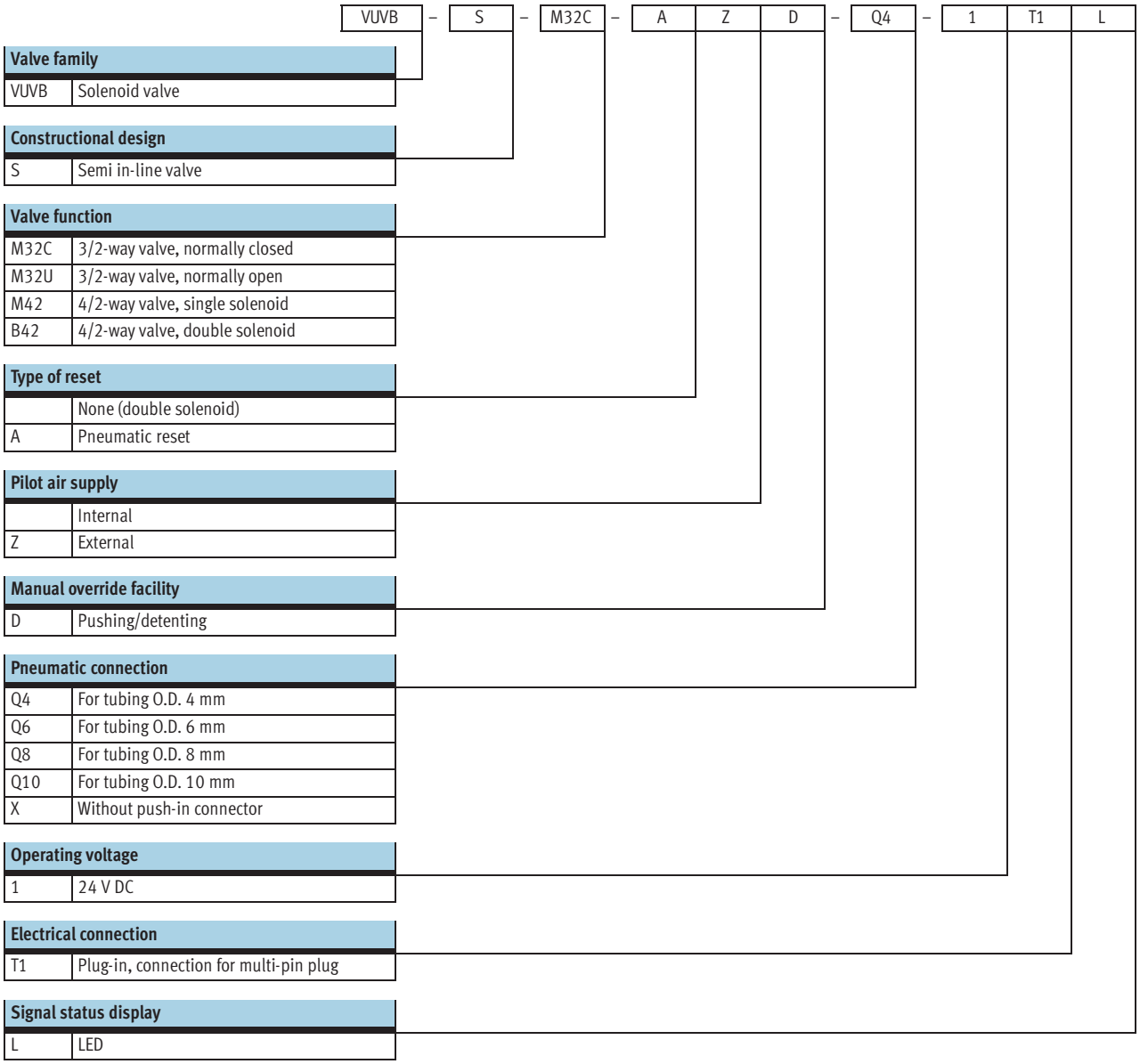
Mineral oils

When using mineral oils (e.g. HLP oils to DIN 51524, parts 1 through 3) or similar oils based on poly-alpha-olefins (PAO), the maximum residual oil content of 5 mg/m^3 must not be exceeded (see ISO 8573-1 Class 4).
A higher residual oil content irrespective of the compressor oil cannot be permitted, as the basic lubricant would be flushed out over time.

Valve terminals type 24 VTUB

Type codes – Terminal valves

FESTO



Valve family	
VUVB	Solenoid valve

Constructional design	
S	Semi in-line valve

Valve function	
M32C	3/2-way valve, normally closed
M32U	3/2-way valve, normally open
M42	4/2-way valve, single solenoid
B42	4/2-way valve, double solenoid

Type of reset	
	None (double solenoid)
A	Pneumatic reset

Pilot air supply	
	Internal
Z	External

Manual override facility	
D	Pushing/detenting

Pneumatic connection	
Q4	For tubing O.D. 4 mm
Q6	For tubing O.D. 6 mm
Q8	For tubing O.D. 8 mm
Q10	For tubing O.D. 10 mm
X	Without push-in connector

Operating voltage	
1	24 V DC

Electrical connection	
T1	Plug-in, connection for multi-pin plug

Signal status display	
L	LED

Valve terminals type 24 VTUB

Technical data – Terminal valves

FESTO

Voltage
24 V DC

Pressure
–0.9 ... +8 bar

Temperature range
–5 ... +50 °C

General technical data					
Valve function			3/2, single solenoid	4/2, single solenoid	4/2, double solenoid
Constructional design			Piston spool valve		
Sealing principle			Soft		
Type of actuation			Electrical		
Type of reset			Pneumatic spring		–
Type of control			Piloted		
Pilot air supply			Internal or external		
Direction of flow			Non-reversible		
Exhaust function			No flow control		
Manual override facility			Non-detenting, detenting		Non-detenting
Type of mounting			Via through-holes		
Installation position			Any		
Width		[mm]	20		
Nominal size		[mm]	7		
Pneumatic connections					
Supply connection		1	G½ (sub-base)		
Exhaust connection		3	G½ (sub-base)		
Working lines		2/4	QS-4, QS-6, QS-8, QS-10		
External pilot air connection		12/14	M5 (sub-base)		
Standard nominal flow rate	qnN	[l/min]	200 (QS-4), 500 (QS-6), 800 (QS-8), 1,000 (QS-10)		

Operating and environmental conditions			
Operating medium			Dried and filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm, vacuum
Operating pressure	Internal pilot air	[bar]	2 ... +8
	External pilot air	[bar]	–0.9 ... +8
Pilot pressure range		[bar]	2 ... 8
Ambient temperature		[°C]	–5 ... +50
Temperature of medium		[°C]	–5 ... +50
Storage temperature[1)]		[°C]	–20 ... +40

1) Long-term storage

Valve terminals type 24 VTUB

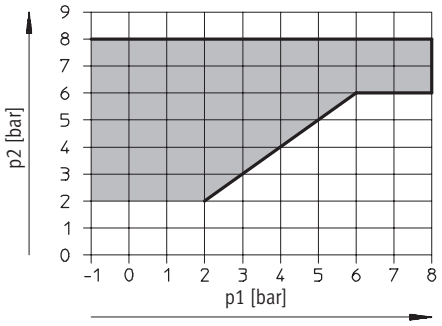
Technical data – Terminal valves

FESTO

Electrical data			
Electrical connection			Socket for multi-pin plug
Nominal operating voltage		[V DC]	24
Permissible voltage fluctuations			±10%
Electrical power consumption	Single solenoid	[W]	1.5
	Double solenoid	[W]	2.4, following a current reduction: 0.1
Protection class to EN 60529			IP65

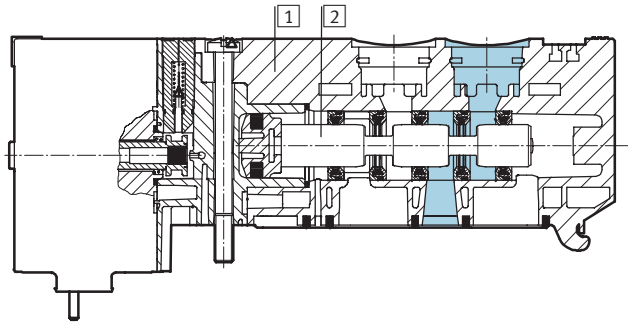
Valve response times [ms]			
Valve function	3/2, single solenoid	4/2, single solenoid	4/2, double solenoid
On	20	20	–
Off	20	20	–
Changeover	–	–	20

Pilot pressure p2 as a function of operating pressure p1



Materials – Valves

Sectional view



Single solenoid

Double solenoid

1	Housing	Reinforced polyamide
2	Piston spool	Wrought aluminium alloy
–	Seals	Nitrile rubber, hydrogenated nitrile rubber, fluorocarbon rubber

Materials	
Manifold rail with multi-pin plug	Wrought aluminium alloy
Pressure zone supply module	Reinforced polyamide
Blanking plate for vacant position	Reinforced polyamide

Valve terminals type 24 VTUB

Technical data – Terminal valves

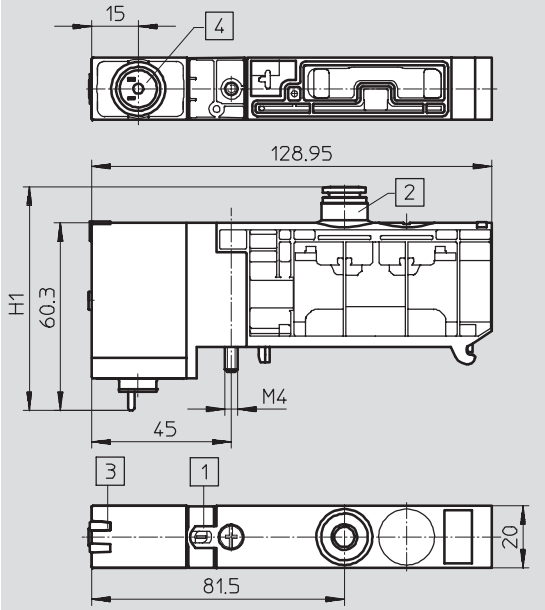
FESTO

Product weight	
Approx. weights [g]	
Manifold rail with multi-pin plug	
• 4 valve positions	690
• 6 valve positions	915
• 8 valve positions	1,150
• 10 valve positions	1,380
• 12 valve positions	1,620
Pressure zone supply module	30
Valves	
• Single solenoid (code K, N, M)	150
• Double solenoid (code J)	220
Blanking plate for vacant position	25

Dimensions – 3/2-way and 4/2-way valve, single solenoid

Download CAD data ➔ **www.festo.com/en/engineering**

For electrical multi-pin plug



1 Manual override facility
2 Fitting QS
3 LED display
4 Plug for electrical linking

Pneumatic connection	H1
QS-4	57
QS-6	60

Pneumatic connection	H1
QS-8	63
QS-10	65

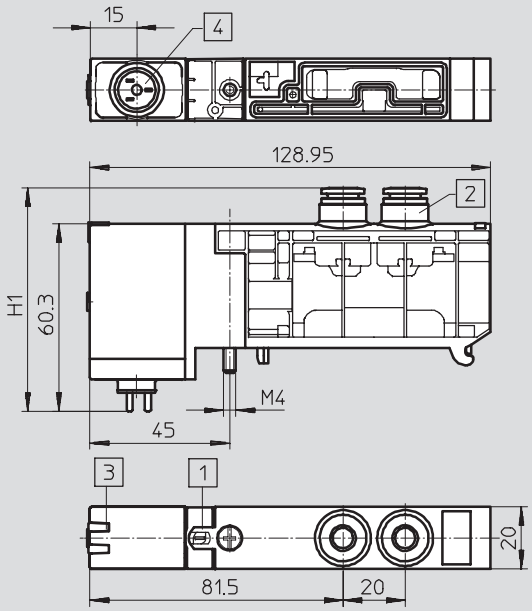
Valve terminals type 24 VTUB

Technical data – Terminal valves

FESTO

Dimensions – 4/2-way valve, double solenoid Download CAD data ➔ **www.festo.com/en/engineering**

For electrical multi-pin plug



1 Manual override facility
2 Fitting QS
3 LED display
4 Plug for electrical linking

Pneumatic connection	H1
QS-4	57
QS-6	60

Pneumatic connection	H1
QS-8	63
QS-10	65

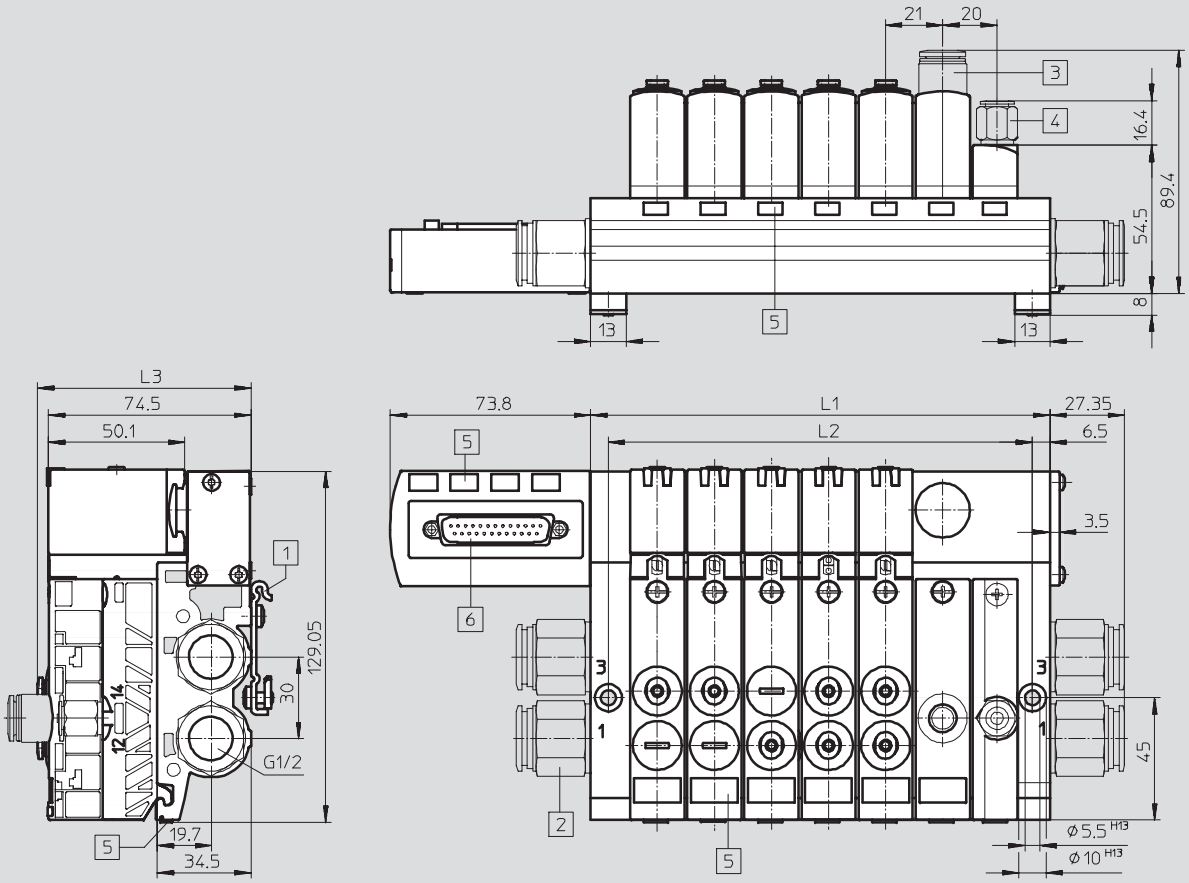
Valve terminals type 24 VTUB

Technical data – Terminal valves

FESTO

Dimensions – Valve terminal Download CAD data ➔ **www.festo.com/en/engineering**

With electrical multi-pin plug



1 Attachment VAME-B6-T (optional) for mounting rail
2 Push-in fittings (optional)
3 Push-in fittings(optional, only with pressure zone supply module; cover plate only with blanking plug)
4 Push-in fitting (optional, only with S types)
5 Inscription label (optional)
6 Sub-D plug

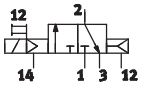
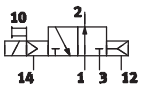
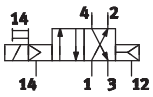
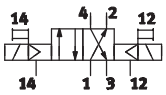
Valve positions	L1	L2
4	127	114
6	169	156
8	211	198
10	253	240
12	295	282

Pneumatic connection	L3
QS-4	78.5
QS-6	78.5
QS-8	86
QS-10	89.4

Valve terminals type 24 VTUB

Technical data – Terminal valves

FESTO

Ordering data – Valves for valve terminal						
Circuit symbol	Code	Description	Voltage	Pneumatic connection	Part No.	Type
3/2-way valves						
	K	Normally closed Pilot air supply[1)] Pneumatic reset	24 V DC	QS-4	**537 602**	**VUVB-S-M32C-AZD-Q4-1T1L**
				QS-6	**537 603**	**VUVB-S-M32C-AZD-Q6-1T1L**
				QS-8	**537 604**	**VUVB-S-M32C-AZD-Q8-1T1L**
				QS-10	**537 605**	**VUVB-S-M32C-AZD-Q10-1T1L**
	N	Normally open Pilot air supply[1)] Pneumatic reset	24 V DC	QS-4	**537 606**	**VUVB-S-M32U-AZD-Q4-1T1L**
				QS-6	**537 607**	**VUVB-S-M32U-AZD-Q6-1T1L**
				QS-8	**537 608**	**VUVB-S-M32U-AZD-Q8-1T1L**
				QS-10	**537 609**	**VUVB-S-M32U-AZD-Q10-1T1L**
4/2-way valves, single solenoid						
	M	Pilot air supply[1)] Pneumatic reset	24 V DC	QS-4	**537 610**	**VUVB-S-M42-AZD-Q4-1T1L**
				QS-6	**537 611**	**VUVB-S-M42-AZD-Q6-1T1L**
				QS-8	**537 612**	**VUVB-S-M42-AZD-Q8-1T1L**
				QS-10	**537 613**	**VUVB-S-M42-AZD-Q10-1T1L**
				without push-in connector	**537 640**	**VUVB-S-M42-AZD-QX-1T1L**
4/2-way valves, double solenoid						
	J	Pilot air supply[1)]	24 V DC	QS-4	**537 614**	**VUVB-S-B42-ZD-Q4-1T1L**
				QS-6	**537 615**	**VUVB-S-B42-ZD-Q6-1T1L**
				QS-8	**537 616**	**VUVB-S-B42-ZD-Q8-1T1L**
				QS-10	**537 617**	**VUVB-S-B42-ZD-Q10-1T1L**
				without push-in connector	**537 641**	**VUVB-S-B42-ZD-QX-1T1L**

1) Internal/external depending on the installation position of the selector in the pressure zone supply module.

Valve terminals type 24 VTUB

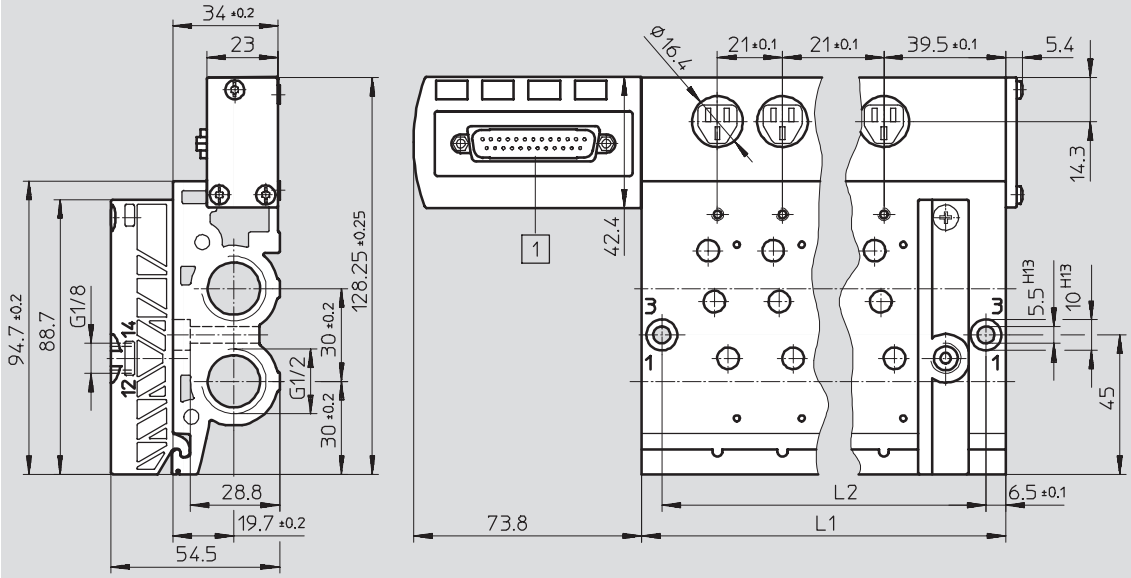
Technical data – Manifold rail

FESTO

Manifold rail with electrical multi-pin plug VABM-...-M1

Material:
Wrought aluminium alloy

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



1 Sub-D plug

Dimensions and ordering data

Valve positions	L1	L2	Weight [g]	CRC	Part No.	Type
4	127	114	690	2 1)	**537 618**	**VABM-B6-E-G12-4-M1**
6	169	156	915	2 1)	**537 619**	**VABM-B6-E-G12-6-M1**
8	211	198	1,150	2 1)	**537 620**	**VABM-B6-E-G12-8-M1**
10	253	240	1,380	2 1)	**537 621**	**VABM-B6-E-G12-10-M1**
12	295	282	1,620	2 1)	**537 622**	**VABM-B6-E-G12-12-M1**

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

Valve terminals VTUB – Multi-pin plug

Ordering data – Modular products

FESTO

[M] Mandatory data					[O] Options	[M]	[O] →
Module No.	**Product type**	**Electrical connection**	**Multi-pin plug connection type**	**Valve type**	**Valve design**	**Nominal operating voltage**	**Manual override facility**	**Pilot air supply**
537 662	VTUB	M	SD	S	– C	1	D	– Z
Ordering example								
537 662	**VTUB**	**M**	**SD**	**S**	**C**	**1**	**D**	**Z**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

Ordering table

				Conditions	Code		Enter code
[M]	1	Module No.	**537 662**				
	2	Product type	Valve terminal		**VTUB**		VTUB
	3	Electrical connection	Multi-pin plug connection		**-M**		-M
	4	Multi-pin plug connection type	Sub-D plug		**SD**		SD
	5	Valve type	Semi in-line valve		**-S**		-S
[O]	6	Valve design	Without cover plate				
			With cover plate		**C**		
[M]	7	Nominal operating voltage	24 V DC		**1**		1
	8	Manual override facility	Detenting		**D**		D
[O] ↓	9	Pilot air supply	Internal				
			External		**Z**		

Transfer order code

537 662	**VTUB**	**M**	**SD**	**S**		**1**	**D**	
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

Valve terminals VTUB – Multi-pin plug

Ordering data – Modular products

FESTO

M Mandatory data	O Options	M	O	M		
Pressure supply connection	Pressure supply connection position	Exhaust connection	Exhaust connection position	Valve connection	Valve connection position	Manifold rail
G12 Q10 Q12 Q16	– L R	D U1	– L R	P4 P6 P8 P10	T TB TA TC	B
– **G12**	**R**	– **D**	**R**	– **P6**	**T**	– **B**
10	**11**	**12**	**13**	**14**	**15**	**16**

Ordering table

				Conditions	Code		Enter code
M	10	Pressure supply connection	Thread G½		**-G12**		
			Push-in connector 10 mm		**-Q10**		
			Push-in connector 12 mm		**-Q12**		
			Push-in connector 16 mm		**-Q16**		
O	11	Pressure supply connection position	At both ends				
			Left-hand end		**L**		
			Right-hand end		**R**		
M	12	Exhaust connection	Ducted (corresponds to the pressure supply connection)		**-D**		
			Silencer		**-U1**		
O	13	Exhaust connection position	At both ends				
			Left-hand end	1	**L**		
			Right-hand end	1	**R**		
M	14	Valve connection	Push-in connector 4 mm		**-P4**		
			Push-in connector 6 mm		**-P6**		
			Push-in connector 8 mm		**-P8**		
			Push-in connector 10 mm		**-P10**		
	15	Valve connection position	On top, straight		**T**		
			On top, angled outlet to the front/rear	2	**TB**		
			On top, angled outlet to the front	2	**TA**		
			On top, angled outlet to the rear	2	**TC**		
↓	16	Manifold rail	Size 2 (G½)		**-B**		-B

1 **L, R** Only with pressure supply connection position (11) L, R

2 **TB, TA, TC** Not with valve connection (14) P10 (push-in connector 10 mm)

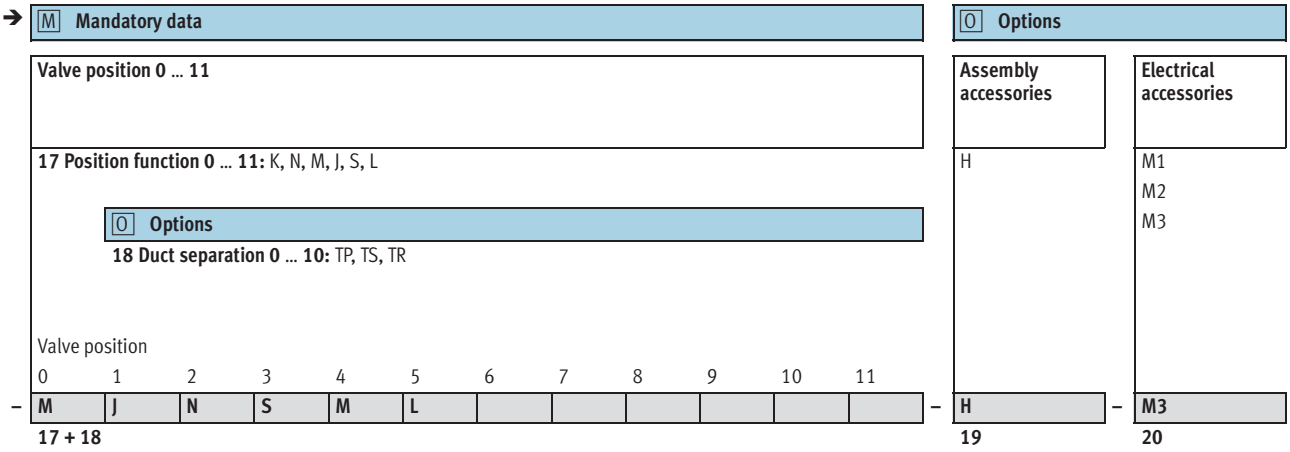
Transfer order code

–		–		–		–	
							B
10	**11**	**12**	**13**	**14**	**15**	**16**	

Valve terminals VTUB – Multi-pin plug

Ordering data – Modular products

FESTO



Ordering table

				Condi-tions	Code		Enter code
		Valve position 0 ... 11		3	-		-
M	17	Position function 0 ... 11	3/2-way valve, normally closed		K		Enter the equip-ment selected in the ordering code
			3/2-way valve, normally open		N		
			4/2-way valve, single solenoid, pneumatic spring		M		
			4/2-way valve, double solenoid		J		
			Additional power supply		S		
			Blanking plate		L		
O	18	Duct separation 0 ... 10	Separator 1	4	TP		
			Separator 1, 3	4	TS		
			Separator 3	4	TR		
O	19	Assembly accessories					
		Type of mounting	H-rail mounting		-H		
	20	Electrical accessories					
		Multi-pin plug connection	Connecting cable for multi-pin plug, 2.5 m		-M1		
			Connecting cable for multi-pin plug, 5 m		-M2		
			Connecting cable for multi-pin plug, 10 m		-M3		

3 Permissible number of valves: 4, 6, 8, 10, 12

4 **TP, TS, TR** Only with pressure supply connection position (11) "At both ends" and exhaust connection position (13) "At both ends".
Possible only once per valve terminal.

Transfer order code

Valve position

0	1	2	3	4	5	6	7	8	9	10	11			
–												–	–	
17 + 18												19	20	

Solenoid valves VUVB/valve terminals type 24 VTUB

Accessories

FESTO

Cover plate for valve housing VAMC

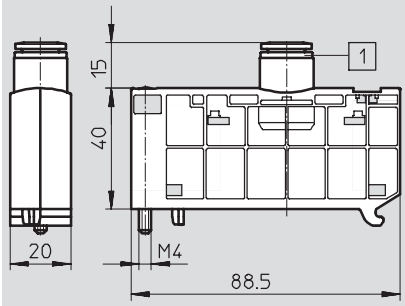
Material:
Polyamide

Ordering data		
CRC	Part No.	Type
2[1)]	**537 512**	**VAMC-B6-C**

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

Pressure zone supply module VABF

Material:
Reinforced polyamide



1 Cartridge fitting QSP18-10

Ordering data				
		CRC	Part No.	Type
For individual electrical connection	With cartridge fitting QSP18-10	2[1)]	**537 517**	**VABF-B6-P1A5-Q10**
For multi-pin plug connection	With cartridge fitting QSP18-10 and cover cap for multi-pin plug connection	2[1)]	**537 624**	**VABF-B6-P1A9-Q10**

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

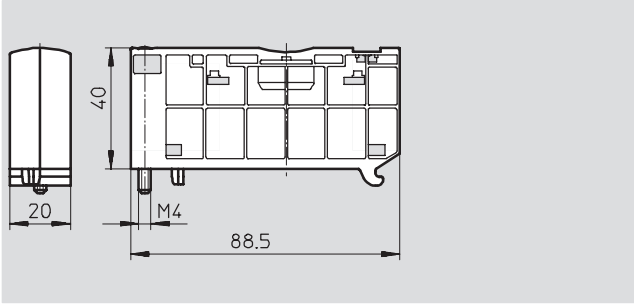
Solenoid valves VUVB/valve terminals type 24 VTUB

Accessories

FESTO

Blanking plate VABB

Material:
Reinforced polyamide

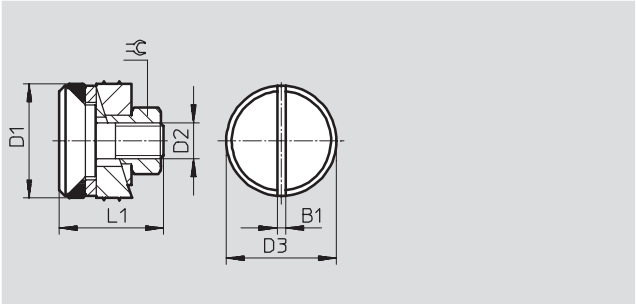


Ordering data				
		CRC	Part No.	Type
For individual electrical connection	–	2[1)]	**537 513**	**VABB-B6-E**
For multi-pin plug connection	With cover plate for multi-pin plug connection	2[1)]	**537 623**	**VABB-B6-ET**

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

Separator for pressure zones VABD

Material:
Steel



Dimensions and ordering data									
Manifold rail	B1	D1 ∅	D2 ∅	D3 ∅	L1	⌀	CRC	Part No.	Type
G¼	1.6	11.7	M4	11.3	13.9	7	2[1)]	**537 515**	**VABD-B6-14-P-C**
G½	1.4	19	M6	18.3	17.3	10	2[1)]	**537 516**	**VABD-B6-12-P-C**

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

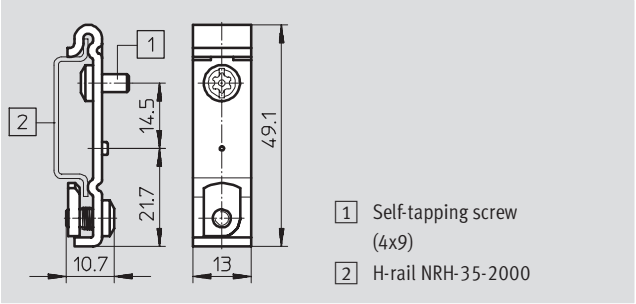
Solenoid valves VUVB/valve terminals type 24 VTUB

Accessories

FESTO

H-rail mounting kit VAME

Material:
Steel



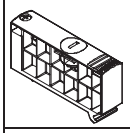
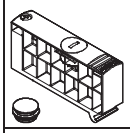
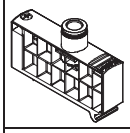
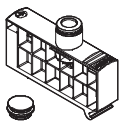
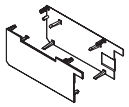
Ordering data		
CRC	Part No.	Type
2 [1)]	**537 514**	**VAME-B6-T**

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

Solenoid valves VUVB/valve terminals type 24 VTUB

Accessories

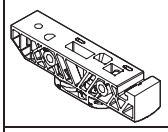
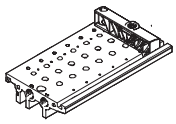
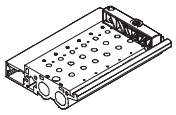
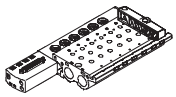
FESTO

Ordering data						
	Code	Valve function	Voltage	Pneumatic connection	Part No.	Type
Blanking plate for vacant position						
	L	For individual electrical connection	–	–	**537 513**	**VABB-B6-E**
	L	For multi-pin plug connection with cover cap for electrical multi-pin plug connection	–	–	**537 623**	**VABB-B6-ET**
Pressure zone supply module						
	S	Additional supply for individual electrical connection	–	QS-10	**537 517**	**VABF-B6-P1A5-Q10**
	S	Additional supply for multi-pin plug connection with cover cap	–	QS-10	**537 624**	**VABF-B6-P1A9-Q10**
	–	Variable plate from which either a sub-base is produced through combination with a blanking plug or a pressure zone supply module is produced through combination with a cartridge		–	**537 532**	**VABF-B6-P1A5-Q**
Cover plate for valve housing						
	C	Valve design with cover	–	–	**537 512**	**VAMC-B6-C**

Solenoid valves VUVB/valve terminals type 24 VTUB

Accessories

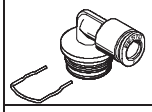
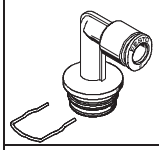
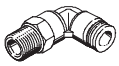
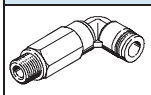
FESTO

Ordering data						
	Code	Description	Valve positions	Pressure supply connection	Part No.	Type
Sub-base for individual valve						
	–	Internal pilot air	1	G¼	**537 518**	**VABS-B6-PB-Q-B**
	–	External pilot air	1	G¼	**537 519**	**VABS-B6-PB-Q**
Manifold rail for individual electrical connection						
	–		2	G¼	**537 500**	**VABM-B6-E-G14-2**
			3		**545 815**	**VABM-B6-E-G14-3**
			4		**537 501**	**VABM-B6-E-G14-4**
			5		**545 816**	**VABM-B6-E-G14-5**
			6		**537 502**	**VABM-B6-E-G14-6**
			7		**545 817**	**VABM-B6-E-G14-7**
			8		**537 503**	**VABM-B6-E-G14-8**
			9		**545 818**	**VABM-B6-E-G14-9**
			10		**537 504**	**VABM-B6-E-G14-10**
			11		**545 819**	**VABM-B6-E-G14-11**
			12		**537 505**	**VABM-B6-E-G14-12**
	–		2	G½	**537 506**	**VABM-B6-E-G12-2**
			3		**545 820**	**VABM-B6-E-G12-3**
			4		**537 507**	**VABM-B6-E-G12-4**
			5		**545 821**	**VABM-B6-E-G12-5**
			6		**537 508**	**VABM-B6-E-G12-6**
			7		**545 822**	**VABM-B6-E-G12-7**
			8		**537 509**	**VABM-B6-E-G12-8**
			9		**545 823**	**VABM-B6-E-G12-9**
			10		**537 510**	**VABM-B6-E-G12-10**
			11		**545 824**	**VABM-B6-E-G12-11**
			12		**537 511**	**VABM-B6-E-G12-12**
Manifold rail for valve terminal with multi-pin plug connection						
	–		4	G½	**537 618**	**VABM-B6-E-G12-4-M1**
			6		**537 619**	**VABM-B6-E-G12-6-M1**
			8		**537 620**	**VABM-B6-E-G12-8-M1**
			10		**537 621**	**VABM-B6-E-G12-10-M1**
			12		**537 622**	**VABM-B6-E-G12-12-M1**
Separator						
	TP, TS, TR	For duct separation		G¼	**537 515**	**VABD-B6-14-P-C**
				G½	**537 516**	**VABD-B6-12-P-C**

Solenoid valves VUVB/valve terminals type 24 VTUB

Accessories

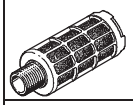
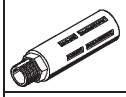
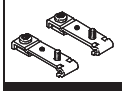
FESTO

Ordering data						
	Code	Description	Tubing O.D.	Packaging unit	Part No.	Type
Cartridge fitting with push-in connector						
	–	Straight Connection ∅ 18 mm	4 mm	10 pieces	**130 839**	**QSP18-4**
	–		6 mm	10 pieces	**130 840**	**QSP18-6**
	–		8 mm	10 pieces	**130 841**	**QSP18-8**
	–		10 mm	10 pieces	**130 842**	**QSP18-10**
	–	L-shape Connection ∅ 18 mm	4 mm	10 pieces	**130 843**	**QSPL18-4**
	–		6 mm	10 pieces	**130 844**	**QSPL18-6**
	–		8 mm	10 pieces	**130845**	**QSPL18-8**
	–	L-shape, long Connection ∅ 18 mm	4 mm	10 pieces	**130 846**	**QSPLL18-4**
	–		6 mm	10 pieces	**130 847**	**QSPLL18-6**
	–		8 mm	10 pieces	**130 848**	**QSPLL18-8**
Push-in fitting						Technical data ➔ Volume 3
	–	With sealing ring Connection G⅛	6 mm	10 pieces	**186 096**	**QS-G⅛-6**
	–		8 mm	10 pieces	**186 098**	**QS-G⅛-8**
	–	With sealing ring Connection G¼	6 mm	10 pieces	**186 097**	**QS-G¼-6**
	–		8 mm	10 pieces	**186 099**	**QS-G¼-8**
	–		10 mm	10 pieces	**186 101**	**QS-G¼-10**
	–		12 mm	10 pieces	**186 350**	**QS-G¼-12**
	–	With sealing ring Connection G½	12 mm	1 piece	**186 104**	**QS-G½-12**
	–		16 mm	1 piece	**186 105**	**QS-G½-16**
	–	Connection R¼	6 mm	10 pieces	**153 003**	**QS-¼-6**
	–		8 mm	10 pieces	**153 005**	**QS-¼-8**
	–		10 mm	10 pieces	**153 007**	**QS-¼-10**
	–		12 mm	10 pieces	**164 980**	**QS-¼-12**
	–	Connection R½	10 mm	1 piece	**190 646**	**QS-½-10**
	–		12 mm	1 piece	**153 010**	**QS-½-12**
	–		16 mm	1 piece	**153 011**	**QS-½-16**
Push-in L-fitting						Technical data ➔ Volume 3
	–	With sealing ring Connection G⅛	6 mm	10 pieces	**186 117**	**QSL-G⅛-6**
	–		8 mm	10 pieces	**186 119**	**QSL-G⅛-8**
	–	With sealing ring Connection G¼	6 mm	10 pieces	**186 118**	**QSL-G¼-6**
	–		8 mm	10 pieces	**186 120**	**QSL-G¼-8**
	–		10 mm	10 pieces	**186 122**	**QSL-G¼-10**
	–		12 mm	10 pieces	**186 351**	**QSL-G¼-12**
	–	With sealing ring Connection G½	12 mm	1 piece	**186 125**	**QSL-G½-12**
	–		16 mm	1 piece	**186 126**	**QSL-G½-16**
Push-in L-fitting, long						Technical data ➔ Volume 3
	–	With sealing ring Connection G¼	6 mm	10 pieces	**186 129**	**QSLL-G¼-6**
	–		8 mm	10 pieces	**186 131**	**QSLL-G¼-8**
	–		10 mm	10 pieces	**186 133**	**QSLL-G¼-10**
	–	With sealing ring Connection G½	12 mm	1 piece	**186 136**	**QSLL-G½-12**
	–		16 mm	1 piece	**190 665**	**QSLL-G½-16**

Solenoid valves VUVB/valve terminals type 24 VTUB

Accessories

FESTO

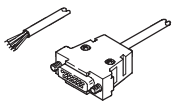
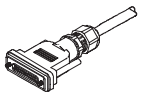
Ordering data						
	Code	Description		Packaging unit	Part No.	Type
Blanking plug						
	–	Connection ∅ 18 mm		10 pieces	**537 533**	**QSPC18**
	–	For thread G¼		10 pieces	**3 569**	**B-¼**
	–	For thread G½		10 pieces	**3 571**	**B-½**
Adapter						
	–	For thread G⅛		10 pieces	**545 921**	**NPFA-A-P18-G18-F**
	–	For thread G¼		10 pieces	**545 922**	**NPFA-A-P18-G14-F**
Silencer						Technical data ➔ Volume 3
	–	For thread G¼		1 piece	**165 004**	**UC-¼**
	–	For thread G¼		1 piece	**2 316**	**U-¼**
	–	For thread G¼		1 piece	**6 842**	**U-¼-B**
	–	For thread G½		1 piece	**6 844**	**U-½-B**
Inscription label						
	–	Scope of delivery 24 labels in frame			**161 937**	**IBS-9x17**
	–	Scope of delivery 80 labels in frame			**197 259**	**MH-BZ-80X**
	–	Scope of delivery 64 labels in frame			**18 576**	**IBS-6x10**
H-rail mounting kit						
	H	Attachment of the manifold rails to H-rails to EN 60715-TH35	–	1 piece	**537 514**	**VAME-B6-T**

Solenoid valves VUVB/valve terminals type 24 VTUB

Accessories

FESTO

Ordering data

	Code	Description	Voltage [V]	Cable length [m]	Part No.	Type
Plug socket						Technical data → 2 / 7.2-10
	–	For self-assembly	Up to 240 AC	–	**151 687**	**MSSD-EB**
	C		Up to 240 AC	–	**539 712**	**MSSD-EB-M12**
	–	With insulation displacement technology, for self-assembly	Up to 240 AC	–	**192 745**	**MSSD-EB-S-M14**
Plug socket with cable						Technical data → 2 / 7.3-23
	–	Switching status display with LED Polyvinyl chloride	24 DC	2.5	**151 688**	**KMEB-1-24-2,5-LED**
			24 DC	5	**151 689**	**KMEB-1-24-5-LED**
		Polyvinyl chloride	Up to 240 AC	2.5	**151 690**	**KMEB-1-230AC-2,5**
			Up to 240 AC	5	**151 691**	**KMEB-1-230AC-5**
Plug socket with cable for individual electrical connection						Technical data → 2 / 7.3-23
	C1	Switching status display with LED Polyurethane	24 DC	2.5	**174 844**	**KMEB-2-24-2,5-LED**
	C2		24 DC	5	**174 845**	**KMEB-2-24-5-LED**
	C1	Polyurethane	Up to 230 AC	2.5	**174 846**	**KMEB-2-230AC-2,5**
	C2		Up to 230 AC	5	**174 847**	**KMEB-2-230AC-5**
Connecting cable for multi-pin plug to IP40						
	–	Sub-D, 25-pin, up to 20 coils Polyurethane	24 DC	2.5	**530 046**	**KMP6-25P-20-2,5**
	–		24 DC	5	**530 047**	**KMP6-25P-20-5**
	–		24 DC	10	**530 048**	**KMP6-25P-20-10**
	–	Sub-D, 25-pin, up to 12 coils Polyurethane	24 DC	2.5	**530 049**	**KMP6-25P-12-2,5**
	–		24 DC	5	**530 050**	**KMP6-25P-12-5**
	–		24 DC	10	**530 051**	**KMP6-25P-12-10**
Connecting cable for multi-pin plug to IP65						
	M1	Sub-D, 25-pin, up to 12 coils	24 DC	2.5	**538 222**	**NEBV-S1G25-K-2,5-N-LE15**
	M2		24 DC	5	**538 223**	**NEBV-S1G25-K-5-N-LE15**
	M3		24 DC	10	**538 224**	**NEBV-S1G25-K-10-N-LE15**
	M1	Sub-D, 25-pin, up to 24 coils	24 DC	2.5	**538 225**	**NEBV-S1G25-K-2,5-N-LE25**
	M2		24 DC	5	**538 226**	**NEBV-S1G25-K-5-N-LE25**
	M3		24 DC	10	**538 227**	**NEBV-S1G25-K-10-N-LE25**
Illuminating seal						
	–	For indicating the signal status	12 ... 24 DC	–	**151 717**	**MEB-LD-12-24DC**
	–		Up to 230 AC	–	**151 718**	**MEB-LD-230AC**