

## Valve terminals type 23 VTUB-12

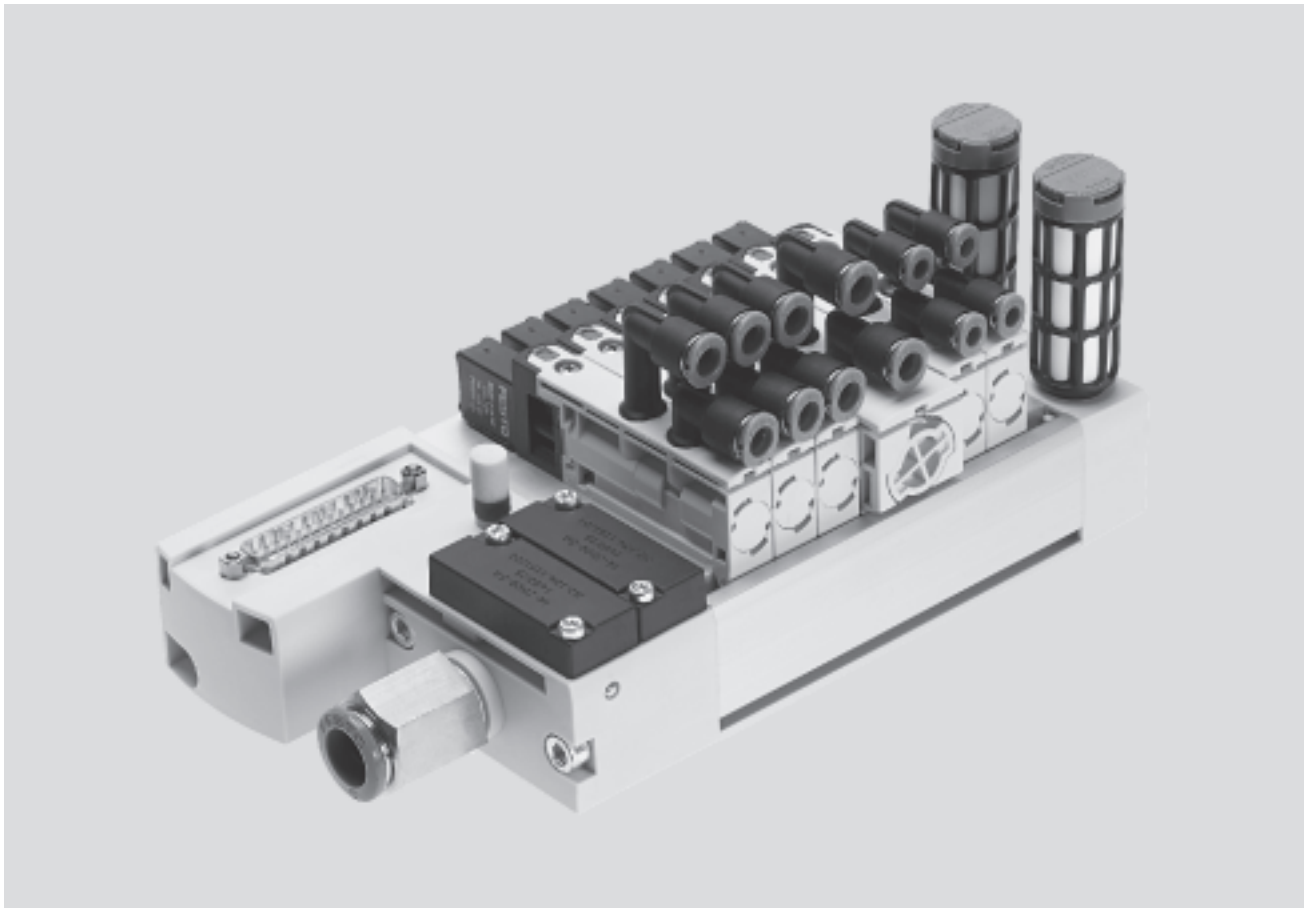
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# Valve terminals type 23 VTUB-12

Key features

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## Innovative

- Valve terminal for a wide range of pneumatic applications
- Weight-optimised metal manifold rail
- Minimal space requirement
- Great flexibility during planning, assembly and operation
- Pneumatic distributor integrated on the valve terminal
- Use in dusty environments

## Versatile

- Room for expansion with 2 ... 35 valve positions on one valve terminal
- The flexibility of the pneumatic working ports provides a practical solution to different requirements
- Fast and easy replacement of fittings
- Manifold rail with optional LED signal status display

## Reliable

- Manual override
- Durable
- Sturdy thanks to the polymer housing and metal manifold rail

## Easy to mount

- Tested and ready to install unit
- Reduced time and effort when ordering, installing and commissioning
- Quick and secure installation thanks to integrated QS fittings
- Easy valve assembly with just one screw

## Note

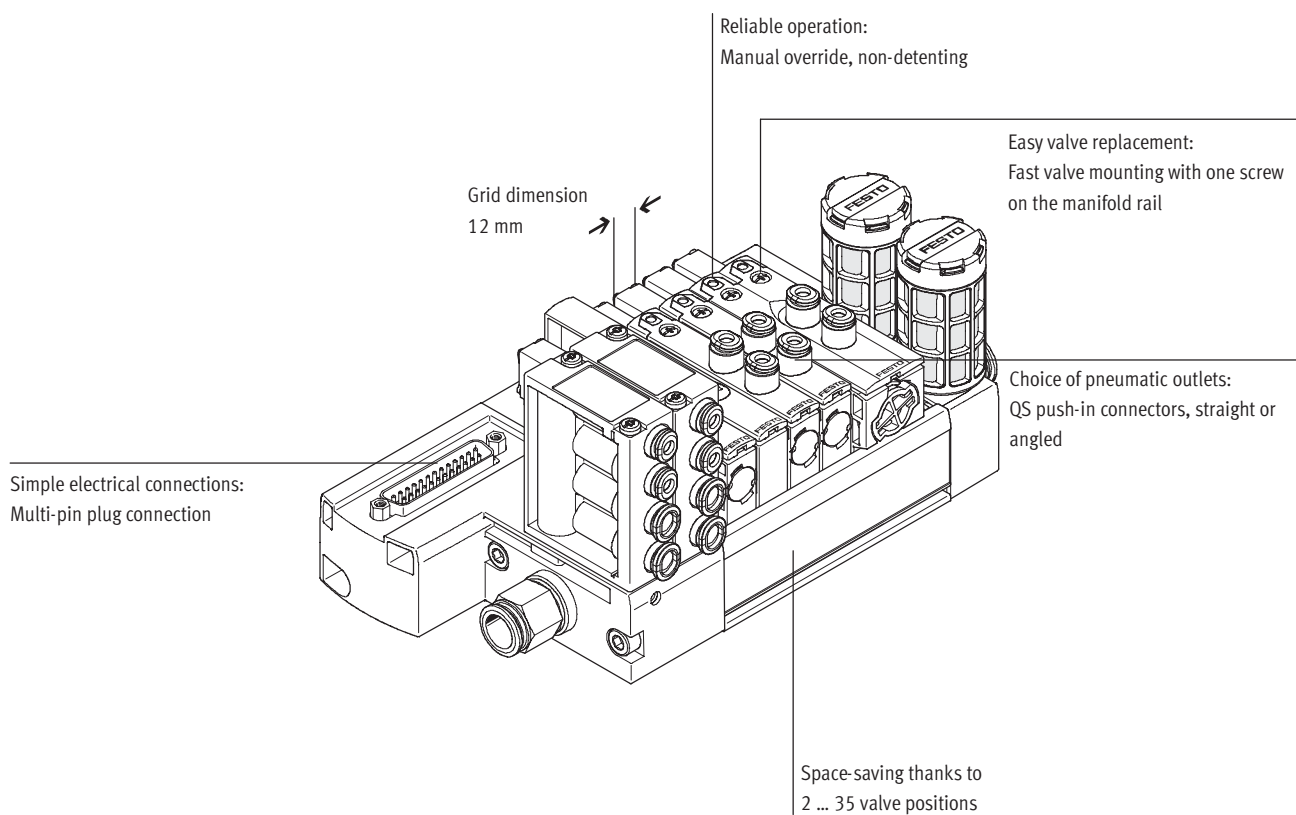
Ordering system for valve terminal type 23 VTUB

➔ Internet: vtub-12

# Valve terminals type 23 VTUB-12

Key features

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## Equipment options

### Valve functions

- 5/2-way valve, single solenoid
- 5/2-way valve, double solenoid
- 3/2-way valve can be formed from a 5/2-way valve using blanking plugs

### Electrical connection options

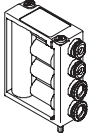
- Multiple connector plate
- 2 ... 35 valve positions/  
max. 35 solenoid coils
- Sub-D

# Valve terminals type 23 VTUB-12

Key features

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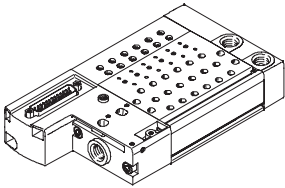
## Pneumatic distributor



The pneumatic distributor supplies the operating pressure from port 1 to up to four other ports. Two pneumatic distributors of this type can be

connected to valve terminal type 23 VTUB-12. The pneumatic distributor has integrated QS4 or QS6 connections.

## Manifold rail

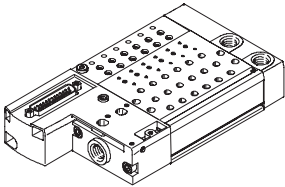


The manifold rail features a groove into which the semi in-line valves are latched and secured with just one screw.

The valve functions 5/2-way single solenoid and 5/2-way double solenoid are available. The valve functions 3/2-way normally closed and 3/2-way normally open can be created

using blanking plugs. The valves can be supplied as semi in-line valves with cartridges QSP for tubing diameters 4 and 6.

## Manifold rail with optional LED signal status display



The manifold rail can optionally be ordered with LEDs (code L). These indicate the signal states of the solenoid coils.

## Blanking plate

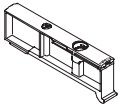


Plate without valve function for reserving valve positions on a valve terminal.

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

## Blanking plug



Blanking plug for sealing working ports (port 2 or 4) on the valve.

The valve function of a 3/2-way valve, normally open, can be created by sealing port 4 of a 5/2-way single solenoid valve.

The valve function of a 3/2-way valve, normally open, can be created by sealing port 2 of a 5/2-way single solenoid valve.

# Valve terminals type 23 VTUB-12

Peripherals overview

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## Overview – Valve terminals type 23 VTUB-12

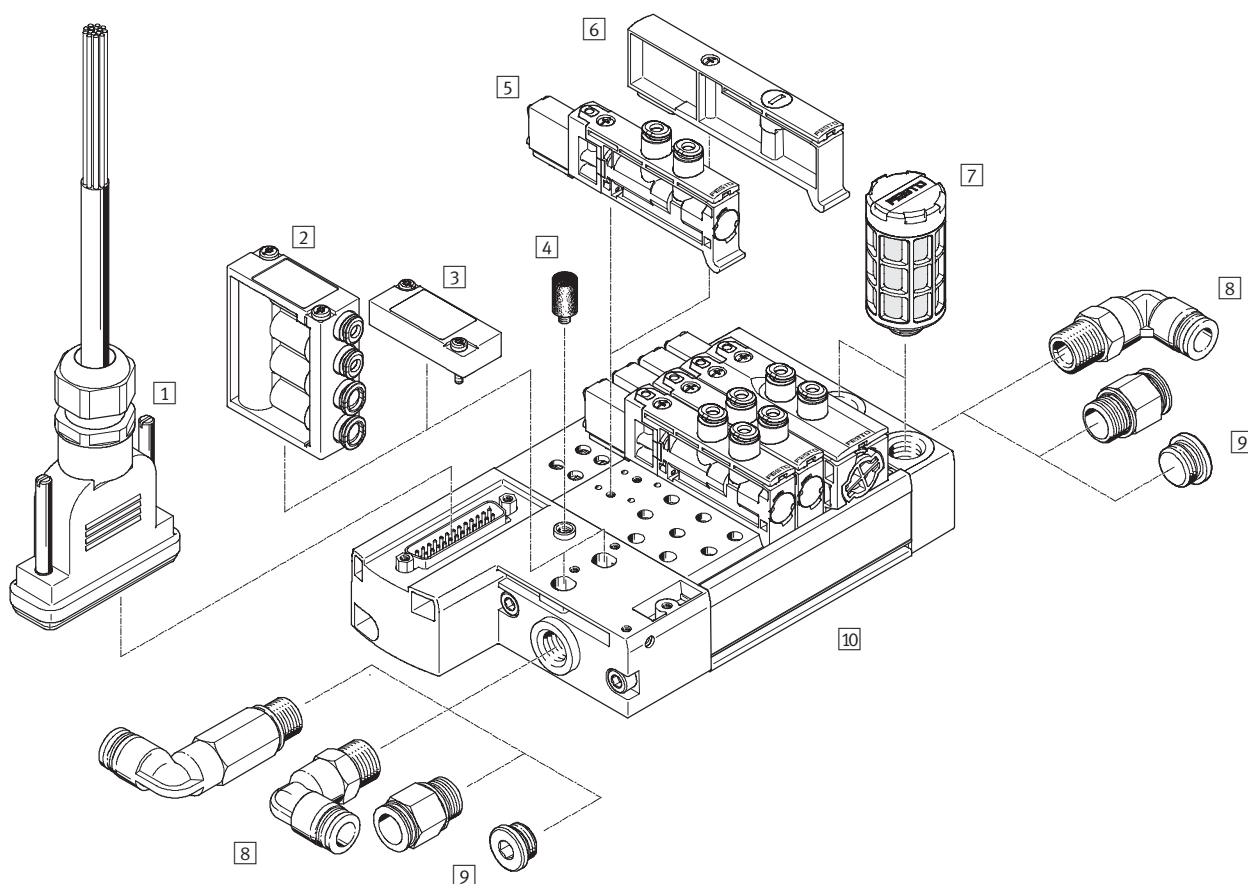
Valve terminal with electrical multi-pin plug connection

- Up to 20 valve positions/solenoid coils, 25-pin Sub-D multi-pin plug connection, code: M
- From 21 valve positions/solenoid coils, 44-pin Sub-D multi-pin plug connection, code: M

Valve terminals with electrical multi-pin plug connection are available in gradations from 2 to max. 35 valve positions.

Each valve position can either be equipped with a valve or a blanking plate. Double solenoid valves occupy two valve positions.

A maximum of 35 valve solenoid coils can be actuated via the electrical multi-pin plug connection.



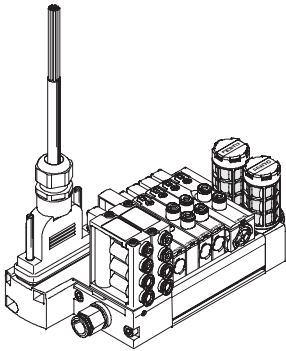
Accessories			Brief description	→ Page/Internet
1	Connecting cable	NEBV	Connecting cable for multi-pin plug connection, with Sub-D plug	20
2	Pneumatic distributor	VABF	For connecting additional distributors to the air supply (port 1)	18
3	Blanking plate	VABB	Blanking plate for vacant position (pneumatic distributor)	18
4	Silencer	U	For venting hole	19
5	Single solenoid valve	VUVB-...-M	–	17
6	Blanking plate	VABB	Blanking plate for vacant position (solenoid valve)	18
7	Silencer	U	For fitting on exhaust ports	19
8	Fittings	QS	For connecting compressed air tubing with standard outside diameter	19
9	Blanking plug	B	For adapting valve functions	18
10	Manifold rail	VABM	With multi-pin plug connection, for connecting max. 35 valves	17

# Valve terminals type 23 VTUB-12

Key features

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## Multi-pin plug connection



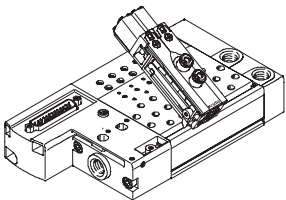
Control signals from the controller to the valve terminal are transmitted via a pre-assembled multi-core cable, which substantially reduces installation time.

This valve terminal can be fitted with 2 ... 35 valves.

Versions

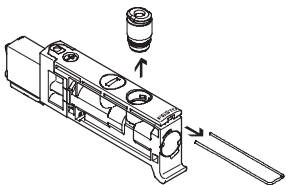
- Sub-D connection

## Wide range of pneumatic components



- The use of the same basic valves for the 3/2-way and 5/2-way valve function 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 230 ... 400 l/min depending on the valve used and appropriate QS connections.

## Changing of fittings on port 2/4

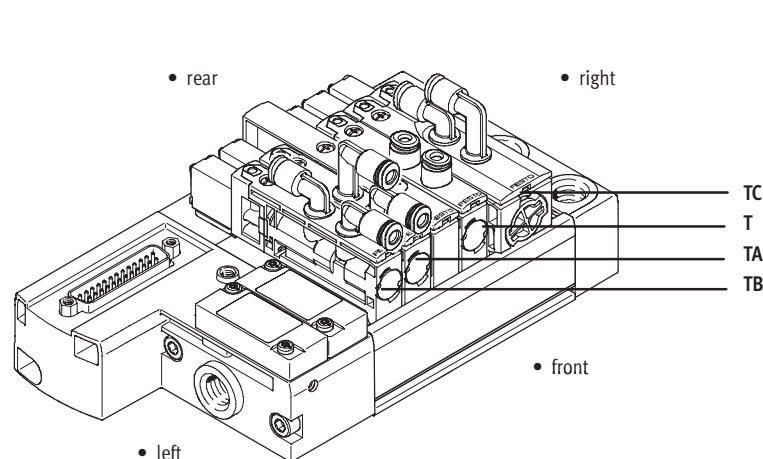


The cartridges (port 2/4) can be changed quickly and easily by removing the spring clip. The ports can be sealed by screwing in a blanking plug (→ 18).

## 3/2-way function

- The function of a 3/2-way valve, normally closed, can be created by sealing port 2 of the 5/2-way single solenoid valve.
- The function of a 3/2-way valve, normally open, can be created by sealing port 4 of the 5/2-way single solenoid valve.

## Connection on the valve



Connection position on the valve:

- T (on top, straight)
- TA (on top, angled outlet to the front)
- TB (on top, angled outlet to the front/rear)
- TC (on top, angled outlet to the rear)

Connection sizes:

- Push-in connector 4 mm (Code P4)
- Push-in connector 6 mm (Code P6)

# Valve terminals type 23 VTUB-12

Key features – Pneumatic components

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## Constructional design

### Valve replacement

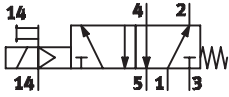
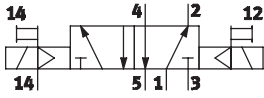
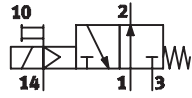
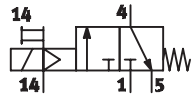
The valves are attached to the aluminium manifold rail using one screw, which means that they can be easily

replaced. Use of high-quality plastics guarantees minimum weight and maximum performance.

### Extension

Blanking plates can be replaced by valves at a later date. The dimensions, mounting points and existing

pneumatic installations remain unchanged during this process.

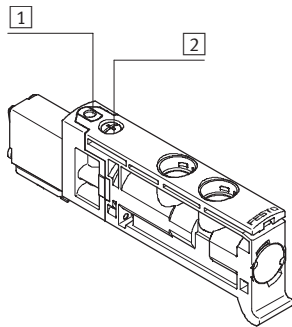
Valve function				
Code	Circuit symbol	Width		Description
		12 mm	24 mm	
M		■	–	5/2-way valve, single solenoid <ul style="list-style-type: none"> <li>• Mechanical spring return</li> <li>• Non-reversible</li> <li>• Not suitable for vacuum</li> </ul>
J		–	■	5/2-way valve, double solenoid <ul style="list-style-type: none"> <li>• Non-reversible</li> <li>• Not suitable for vacuum</li> </ul>
N		■	–	3/2-way valve, single solenoid <ul style="list-style-type: none"> <li>• Normally open</li> <li>• Mechanical spring return</li> <li>• Non-reversible</li> <li>• Not suitable for vacuum</li> <li>• Formed from a 5/2-way single solenoid valve by sealing port 4</li> </ul>
K		■	–	3/2-way valve, single solenoid <ul style="list-style-type: none"> <li>• Normally closed</li> <li>• Mechanical spring return</li> <li>• Non-reversible</li> <li>• Not suitable for vacuum</li> <li>• Formed from a 5/2-way single solenoid valve by sealing port 2</li> </ul>

# Valve terminals type 23 VTUB-12

Key features – Display and operation

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## Display and operation

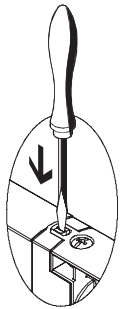


- 1 Manual override (non-detenting)
- 2 Screw for valve assembly

The manual override (MO) enables the valve to be activated without electronic control or power supply. The valve is activated by pushing the manual override. The set switching status cannot be locked.

## Manual override (MO)

MO with automatic return (non-detenting)

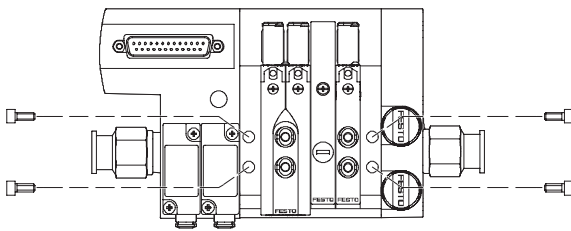


Press in the stem of the MO with a pin or screwdriver.  
 → Valve is in switching position.  
 Remove the pin or screwdriver.  
 Spring force pushes the stem of the MO back.  
 → Valve returns to normal position.

### Note

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

## Mounting – Valve terminal



Sturdy terminal mounting thanks to:

- Four through-holes for wall mounting (M5 screws)



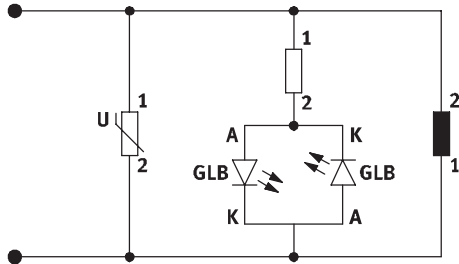
# Valve terminals type 23 VTUB-12

Key features – Electrical components

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## Electrical protective

Manifold rail with LED signal status display



### Note

The electrical protective circuit only relates to the optional LED variant.

## Electrical multi-pin plug connection

The following multi-pin plug connections are offered for the valve terminal VTUB-12:

- Sub-D multi-pin plug connection (25-pin)
- Sub-D multi-pin plug connection (44-pin)

Pins 1 ... 44 are used for addresses 0 ... 43 in order. If fewer than 44 addresses are used for the valve terminal, the remaining pins are left free. Pins 22 ... 25 or 41 ... 44 are reserved for the neutral conductor or 24 V. The valves are switched by means of positive or negative logic (positive switching or negative switching).

Mixed operation is not permitted. Each pin on the multi-pin plug can actuate exactly one valve solenoid coil. If the maximum configurable number of valve positions is 35, this means that 35 valves can be addressed with one solenoid coil (single solenoid).

### Note

A double solenoid valve occupies two valve positions. With 17 or more valve positions, the number of available valve positions for double solenoid valves.

## Pin allocation – Sub-D plug, 25-pin

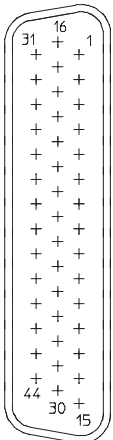
	Pin	Address/coil	Wire colour <sup>1)</sup> connecting cable	
			15-wire, NEBV-S1...25-K-...-LE15	25-wire, NEBV-S1...25-K-...-LE25
	1	0	WH	WH
	2	1	BN	BN
	3	2	GN	GN
	4	3	YE	YE
	5	4	GY	GY
	6	5	PK	PK
	7	6	BU	BU
	8	7	RD	RD
	9	8	BK	BK
	10	9	VT	VT
	11	10	GY PK	GY PK
	12	11	RD BU	RD BU
	13	12	–	GN WH
	14	13	–	BN GN
	15	14	–	YE WH
	16	15	–	BN YE
	17	16	–	GY WH
	18	17	–	BN GY
	19	18	–	WH PK
	20	19	–	BN PK
<b>Note</b> The drawing shows the view on the pins of the Sub-D plug.	21	–	–	BU WH
	22	0 V/24 V	–	BN BU
	23	0 V/24 V	GN WH	RD WH
	24	0 V/24 V	BN GN	BN RD
	25	0 V/24 V	YE WH	BK WH

1) To IEC 757

# Valve terminals type 23 VTUB-12

Key features – Applications

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Pin allocation – Sub-D plug, 44-pin							
	Pin	Address/coil	Wire colour <sup>1)</sup> connecting cable NEBV-S1...44-K...		Pin	Address/coil	Wire colour <sup>1)</sup> connecting cable NEBV-S1...44-K...
	1	0	WH		23	22	WH RD
	2	1	BN		24	23	BN RD
	3	2	GN		25	24	WH BK
	4	3	YE		26	25	BN BK
	5	4	GY		27	26	GY GN
	6	5	PK		28	27	YE GY
	7	6	BU		29	28	PK GN
	8	7	RD		30	29	YE PK
	9	8	BK		31	30	GN BU
	10	9	VT		32	31	YE BU
	11	10	GY PK		33	32	GN RD
	12	11	RD BU		34	33	YE RD
	13	12	WH GN		35	34	GN BK
	14	13	BN GN		36	–	–
	15	14	WH YE		37	–	–
	16	15	YE BN		38	–	–
	17	16	WH GY		39	–	–
	18	17	GY BN		40	–	–
	19	18	WH PK		41	0 V/24 V	YE BK
	20	19	PK BN		42	0 V/24 V	GY BU
	21	20	WH BU		43	0 V/24 V	PK BU
	22	21	BN BU		44	0 V/24 V	GY RD
<b>Note</b> The drawing shows the view on the pins of the Sub-D plug.							

1) To IEC 757

## System equipment

Operate system equipment with unlubricated compressed air if possible. Festo valves and cylinders are designed so that, if used as designated, they will not require additional lubrication and will still achieve 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 system equipment with lubricated compressed air. The lubricators should, where possible, always be installed directly upstream of the actuator used.

Unsuitable additional oil and an excessive 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 on synthetic or native ester, e.g. rapeseed oil methyl ester), the maximum residual oil content of 0.1 mg/m<sup>3</sup> 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<sup>3</sup> 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 23 VTUB-12

Technical data

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Voltage

24 V DC



Pressure

+2.8 ... +8 bar

Temperature range

−5 ... +60 °C



General technical data			
Valve function		Single solenoid	Double solenoid
Constructional design		Poppet valve	
Sealing principle		Soft	
Actuation type		Electric	
Reset method		Mechanical spring	
Control type		Piloted	
Pilot air supply		Internal	
Direction of flow		Non-reversible	
Exhaust function		No flow control	
Manual override		Non-detenting (pushing)	
Type of mounting		Via through-holes	
Grid dimension	[mm]	12	24
Nominal size	[mm]	3	
Max. number of valve positions		35	17
Max. number of pressure zones		1	
Standard nominal flow rate	qnN	[l/min]	400
Pneumatic connection	1; 3	G $\frac{1}{4}$	
Pneumatic working line	2; 4	QS-4 or QS-6	

Operating and environmental conditions			
Operating medium		Dried and filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm	
Operating pressure	[bar]	+2.8 ... +8	
Ambient temperature	[°C]	−5 ... +60	
Temperature of medium	[°C]	+5 ... +50	
Note on materials		Conforms to RoHS	

# Valve terminals type 23 VTUB-12

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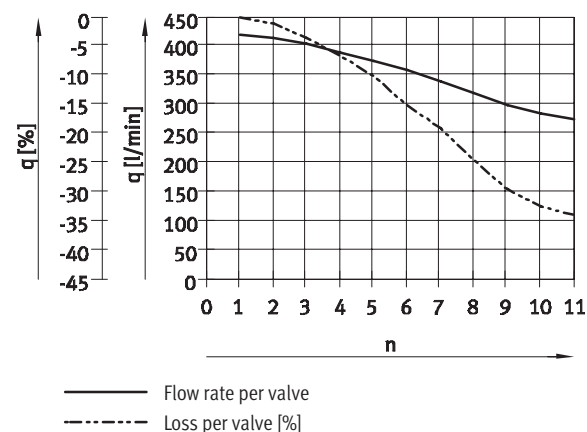
Technical data

Product weight		
Approx. weights		[g]
Valves		
• Single solenoid (code M), ducted solenoid exhaust		27.8
• Double solenoid (code J), ducted solenoid exhaust		57.4
• Single solenoid (code M), not ducted solenoid exhaust		27.5
• Double solenoid (code J), not ducted solenoid exhaust		57.1
Blanking plate for vacant position		13.8
Manifold rail		
• Multiple connector with Sub-D plug, 25 pin	2 valve positions	381.9
	4 valve positions	483.5
	6 valve positions	585.1
	8 valve positions	686.7
	10 valve positions	788.3
	12 valve positions	889.9
	14 valve positions	991.5
	16 valve positions	1093.1
	18 valve positions	1194.7
	20 valve positions	1296.3
	24 valve positions	1397.9
	28 valve positions	1499.5
	32 valve positions	1601.1
	35 valve positions	1702.7
• Multiple connector with Sub-D plug, 44 pin		

Electrical data		
Valve function	Single solenoid	Double solenoid
Electrical actuation	Multi-pin plug	
Nominal operating voltage [V DC]	24	
Permissible voltage fluctuations	±10%	
Electrical power consumption [W]	1	
Protection class to EN 60529	IP65	
Duty cycle [%]	100	

Valve switching times [ms]			
Valve function	3/2	5/2-way, single solenoid	5/2-way, double solenoid
On	6	6	–
Off	14	14	–
Changeover	–	–	10

## Flow rate per valve with multiple (n) valves switched simultaneously

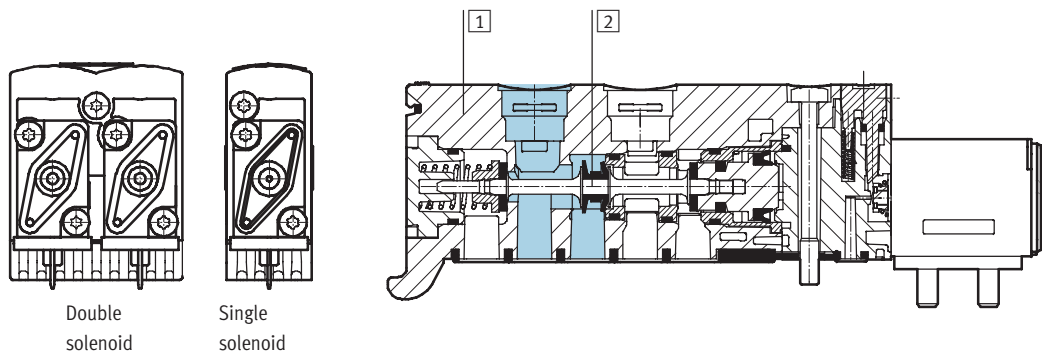


# Valve terminals type 23 VTUB-12

Technical data



## Materials Sectional view – Valves



1	Housing	Reinforced polyamide
2	Piston spool	Wrought aluminium alloy
–	Seals	Nitrile rubber, thermoplastic polyurethane
–	Manifold rail with multi-pin plug	Wrought aluminium alloy
–	Power supply module	Reinforced polyamide
–	Blanking plate for vacant position	Reinforced polyamide

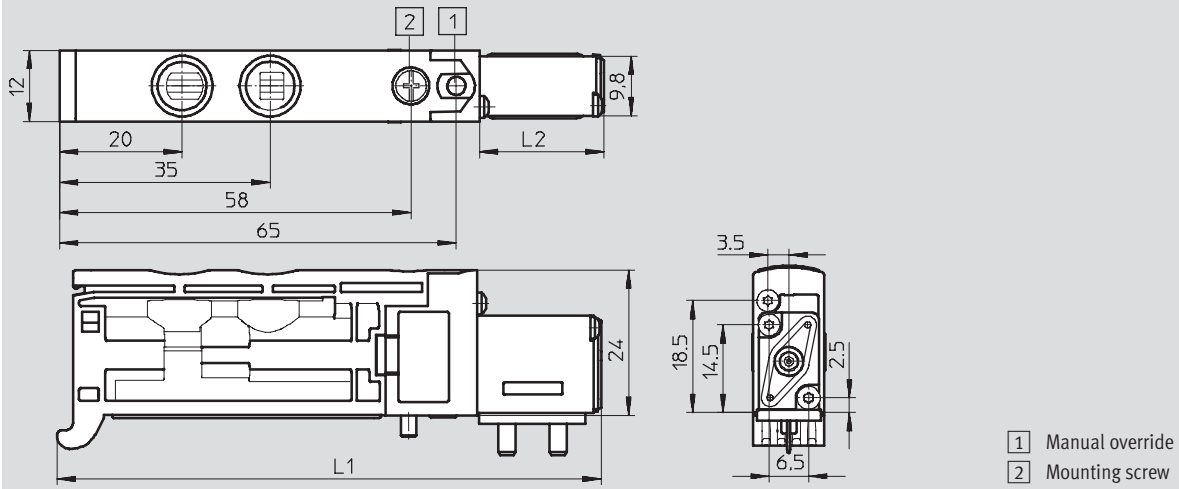
# Valve terminals type 23 VTUB-12

Technical data

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## Dimensions – 5/2-way valve, single solenoid

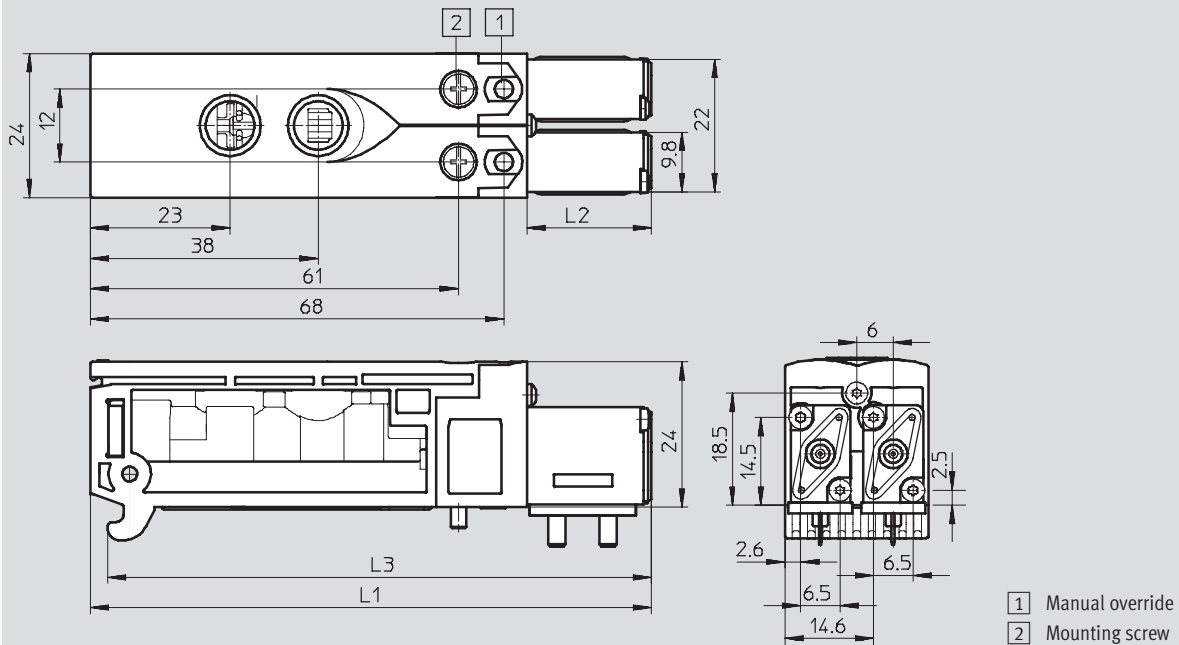
Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	L1	L2
VUVB-ST12-M52-MZH-QX-1T1	89.6	20.5
VUVB-ST12-M52-MZH-QX-D-1T1	89.6	20.8

## Dimensions – 5/2-way valve, double solenoid

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Type	L1	L2	L3
VUVB-ST12-B52-ZH-QX-1T1	92.4	20.5	89.5
VUVB-ST12-B52-ZH-QX-D-1T1	92.7	20.8	89.9

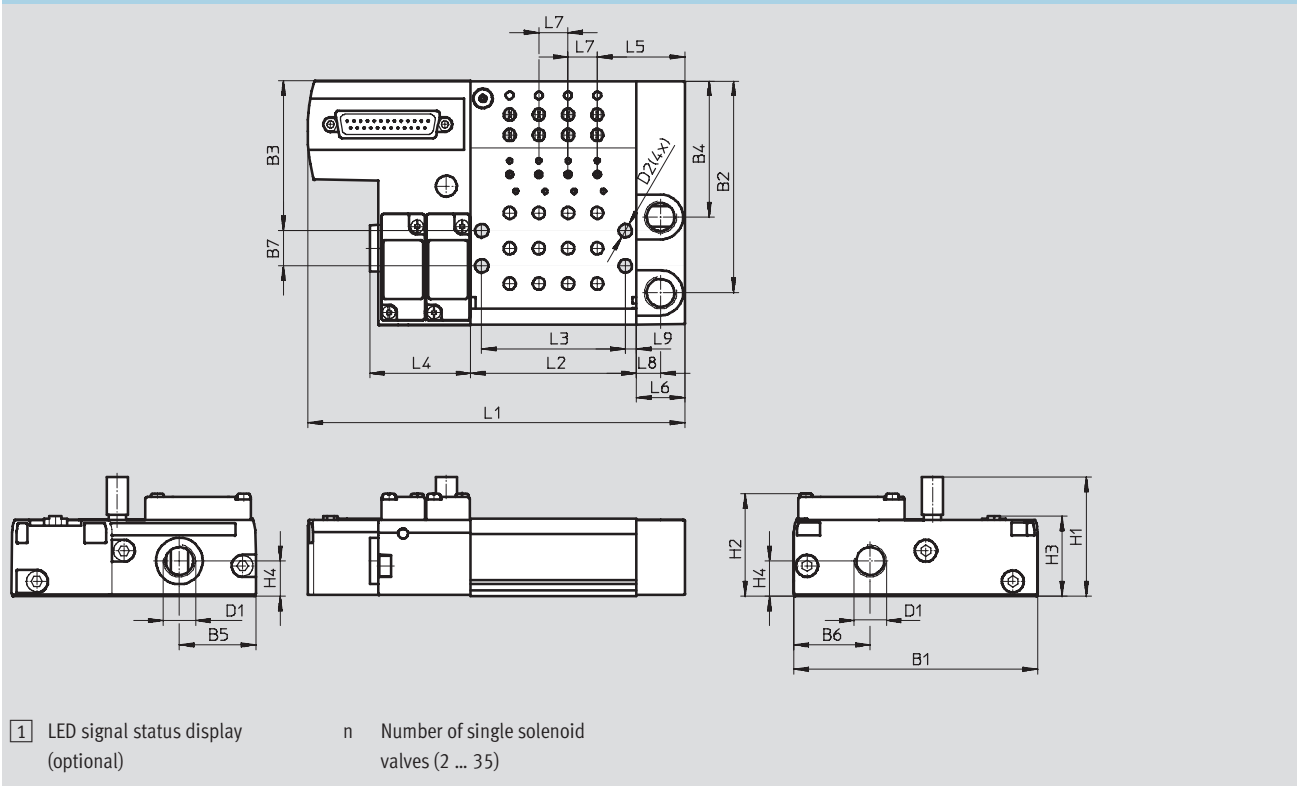
# Valve terminals type 23 VTUB-12

Technical data



Dimensions – Manifold rail

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Type	B1	B2	B3	B4	B5	B6	B7	D1	D2	H1	H2	H3	H4
VABM-C8-12E-...	100	87	61.4	55.9	31.5	31.3	14.5	G <sup>1</sup> / <sub>4</sub>	5.5	49	42.2	33	14.5

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9
VABM-C8-12E-...	(n x 12) + 107	(n x 12) + 20	(n x 12) + 11	41.5	36	20	12	10	4.5

# Valve terminals type 23 VTUB-12

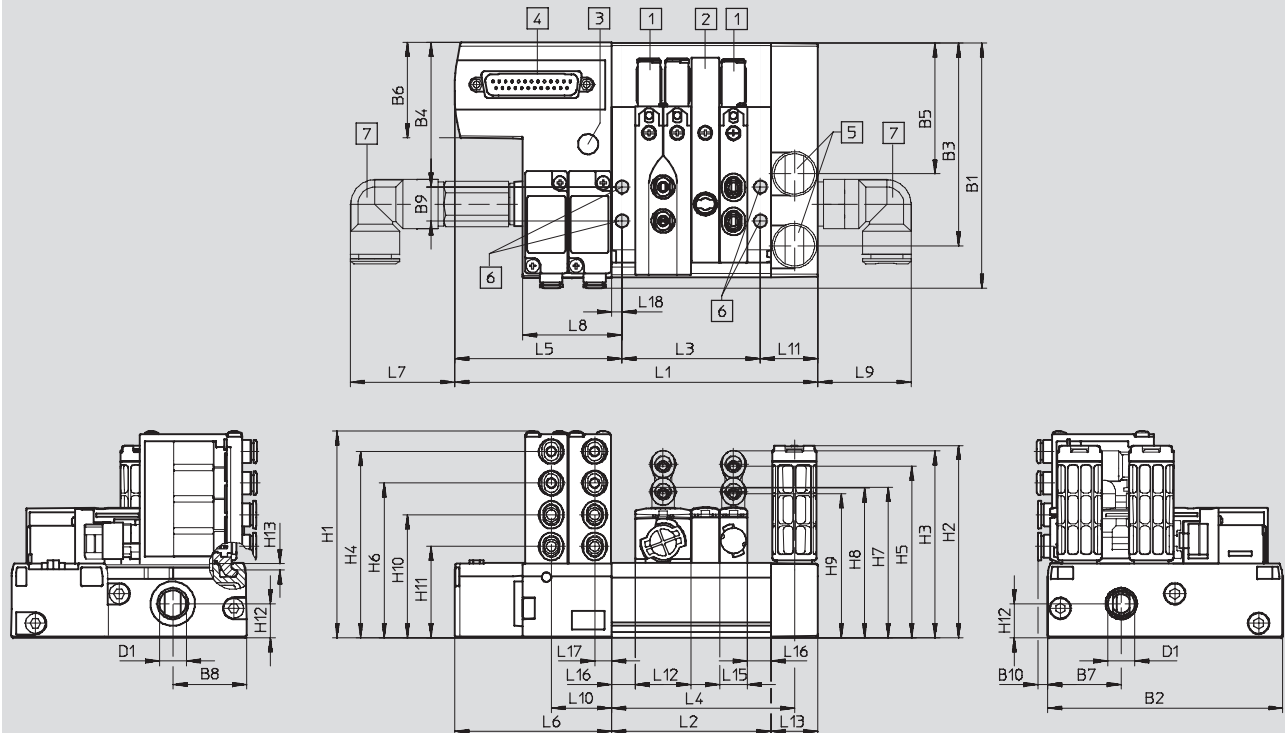
Technical data

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## Dimensions – Valve terminal

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

With electrical multi-pin plug



- |   |                                    |   |   |   |                                  |   |   |
|---|------------------------------------|---|---|---|----------------------------------|---|---|
| 1 | 5/2-way valve                      | 4 | SUB-D plug, 25-pin or 44-pin with 21 or more solenoid coils | 6 | Hole for wall mounting, Ø 5.5 mm | 7 | Fittings for air supply port                |
| 2 | Blanking plate for vacant position | 5 | Silencer/threaded port G $\frac{1}{4}$                      |   |                                  | n | Number of single solenoid valves (2 ... 35) |
| 3 | Silencer/threaded port M5          |   |   |   |                                  |   |   |

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17
VTUB-12	$(n \times 12) + 107$	$(n \times 12) + 20$	$(n \times 12) + 11$	78	71.5	67	44.3	42.5	40	25.7	24.5	23.7	20	11.7	10.2	7.2	4.5

Type	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1
QS-4	104.7	100	86.5	61.5	55.9	40.5	31.3	31.5	14.5	4.4	G $\frac{1}{4}$
QS-6											

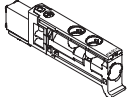
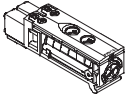
Type	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
QS-4	88.2	82	76	71	65.9	65.9	64.1	63.8	61	52.4	38.9	14.5	2.5
QS-6			80	74					62				

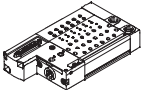
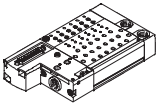


## Valve terminals type 23 VTUB-12

Accessories

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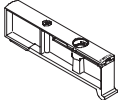
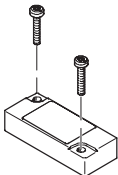
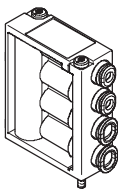


Ordering data – Solenoid valves					
	Code	Valve function	Solenoid exhaust air	Part No.	Type
	M	5/2-way valve, single solenoid	None/not ducted	557649	VUVB-ST12-M52-MZH-QX-1T1
			Ducted	558369	VUVB-ST12-M52-MZH-QX-D-1T1
	J	5/2-way valve, double solenoid	None/nor ducted	557650	VUVB-ST12-B52-ZH-QX-1T1
			Ducted	558370	VUVB-ST12-B52-ZH-QX-D-1T1

Ordering data – Manifold rail					
	Code	Description	Valve positions	Part No.	Type
	–	Multi-pin plug with Sub-D plug, 25-pin	2	557651	VABM-C8-12E-G14-2-M1
			4	557653	VABM-C8-12E-G14-4-M1
			6	557655	VABM-C8-12E-G14-6-M1
			8	557657	VABM-C8-12E-G14-8-M1
			10	557659	VABM-C8-12E-G14-10-M1
			12	557661	VABM-C8-12E-G14-12-M1
			14	557663	VABM-C8-12E-G14-14-M1
			16	557665	VABM-C8-12E-G14-16-M1
			18	557667	VABM-C8-12E-G14-18-M1
			20	557669	VABM-C8-12E-G14-20-M1
		Multi-pin plug with Sub-D plug, 44-pin	24	557673	VABM-C8-12E-G14-24-M1
			28	557677	VABM-C8-12E-G14-28-M1
			32	557681	VABM-C8-12E-G14-32-M1
			35	557684	VABM-C8-12E-G14-35-M1
	L	Multi-pin plug with Sub-D plug, 25-pin, LED signal status display	2	1361863	VABM-C8-12E-G14-2-M1-L
			4	1361865	VABM-C8-12E-G14-4-M1-L
			6	1361867	VABM-C8-12E-G14-6-M1-L
			8	1361868	VABM-C8-12E-G14-8-M1-L
			10	1361869	VABM-C8-12E-G14-10-M1-L
			12	1361870	VABM-C8-12E-G14-12-M1-L
			14	1361871	VABM-C8-12E-G14-14-M1-L
			16	1361873	VABM-C8-12E-G14-16-M1-L
			18	1361874	VABM-C8-12E-G14-18-M1-L
			20	1361875	VABM-C8-12E-G14-20-M1-L
		Multi-pin plug with Sub-D plug, 44-pin, LED signal status display	24	1361876	VABM-C8-12E-G14-24-M1-L
			28	1361877	VABM-C8-12E-G14-28-M1-L
			32	1361878	VABM-C8-12E-G14-32-M1-L
			35	1361879	VABM-C8-12E-G14-35-M1-L

## Valve terminals type 23 VTUB-12

Accessories



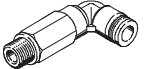





**FESTO**

Ordering data				
	Code	Description	Part No.	Type
Blanking plate				
	L	Blanking plate for vacant valve position	562461	VABB-C8-12-ET
	–	Blanking plate for pneumatic distributor position	562460	VABB-C8-12-A
Distributors				
	AL	Push-in connector 4 mm	562457	VABF-C8-12-V1P4-Q4
	BL	Push-in connector 6 mm	562458	VABF-C8-12-V1P4-Q6
	CL	Push-in connector 4 and 6 mm	562459	VABF-C8-12-V1P4-Q4-Q6
Blanking plugs				
		Connection Ø 10 mm	562243	QSPC10
	–	For thread G1/4, 10 pieces	3569	B-1/4

## Valve terminals type 23 VTUB-12

Accessories

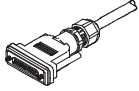
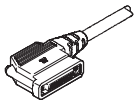
**FESTO**

Ordering data						
	Code	Description	Tubing O.D.	Packaging unit	Part No.	Type
Push-in fitting <span style="float: right;">Technical data → Internet: quick star</span>						
	–	With sealing ring	8 mm	10 pieces	186099	QS-G $\frac{1}{4}$ -8
	–	Connection G $\frac{1}{4}$	10 mm	10 pieces	186101	QS-G $\frac{1}{4}$ -10
	–		12 mm	10 pieces	186350	QS-G $\frac{1}{4}$ -12
Push-in L-fitting <span style="float: right;">Technical data → Internet: quick star</span>						
	–	With sealing ring	8 mm	10 pieces	186120	QSL-G $\frac{1}{4}$ -8
	–	Connection G $\frac{1}{4}$	10 mm	10 pieces	186122	QSL-G $\frac{1}{4}$ -10
	–		12 mm	10 pieces	186351	QSL-G $\frac{1}{4}$ -12
Push-in L-fitting (long) <span style="float: right;">Technical data → Internet: quick star</span>						
	–	With sealing ring	8 mm	10 pieces	186131	QSLL-G $\frac{1}{4}$ -8
	–	Connection G $\frac{1}{4}$	10 mm	10 pieces	186133	QSLL-G $\frac{1}{4}$ -10
	–		12 mm	10 pieces	132596	QSLL-G $\frac{1}{4}$ -12
Cartridge fitting with push-in connector						
	–	Straight	4 mm	10 pieces	172972	QSP10-4
	–	Connection Ø 10 mm	6 mm	10 pieces	172973	QSP10-6
	–	L-shape	4 mm	10 pieces	132601	QSPLK10-4
	–	Connection Ø 10 mm	6 mm	10 pieces	132602	QSPLK10-6
	–	L-shape, long	4 mm	10 pieces	132603	QSPLLK10-4
	–	Connection Ø 10 mm	6 mm	10 pieces	132604	QSPLLK10-6
Silencer <span style="float: right;">Technical data → Internet: u</span>						
	–	For thread M5		1 piece	4645	U-M5
	–	For thread G $\frac{1}{4}$		1 piece	2316	U- $\frac{1}{4}$

## Valve terminals type 23 VTUB-12

Accessories

**FESTO**

Ordering data – Connecting cable for multi-pin plug					
	Code	Description	Cable length [m]	Part No.	Type
	M1	Sub-D, 25-pin, straight socket, up to 12 coils, IP65	2.5	538222	NEBV-S1G25-K-2,5-N-LE15
	M2		5	538223	NEBV-S1G25-K-5-N-LE15
	M3		10	538224	NEBV-S1G25-K-10-N-LE15
	M1	Sub-D, 25-pin, straight socket, up to 20 coils, IP65	2.5	538225	NEBV-S1G25-K-2,5-N-LE25
	M2		5	538226	NEBV-S1G25-K-5-N-LE25
	M3		10	538227	NEBV-S1G25-K-10-N-LE25
	M1	Sub-D, 44-pin, straight socket, up to 35 coils, IP65	2.5	565289	NEBV-S1G44-K-2.5-N-LE39
	M2		5	565290	NEBV-S1G44-K-5-N-LE39
	M3		10	565291	NEBV-S1G44-K-10-N-LE39
	W1	Sub-D, 25-pin, angled socket, up to 12 coils, IP65	2.5	565280	NEBV-S1W25-K-2.5-N-LE15
	W2		5	565281	NEBV-S1W25-K-5-N-LE15
	W3		10	565282	NEBV-S1W25-K-10-N-LE15
	W1	Sub-D, 25-pin, angled socket, up to 20 coils, IP65	2.5	565283	NEBV-S1W25-K-2.5-N-LE25
	W2		5	565284	NEBV-S1W25-K-5-N-LE25
	W3		10	565285	NEBV-S1W25-K-10-N-LE25
	W1	Sub-D, 44-pin, angled socket, up to 35 coils, IP65	2.5	565286	NEBV-S1W44-K-2.5-N-LE39
	W2		5	565287	NEBV-S1W44-K-5-N-LE39
	W3		10	565288	NEBV-S1W44-K-10-N-LE39

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