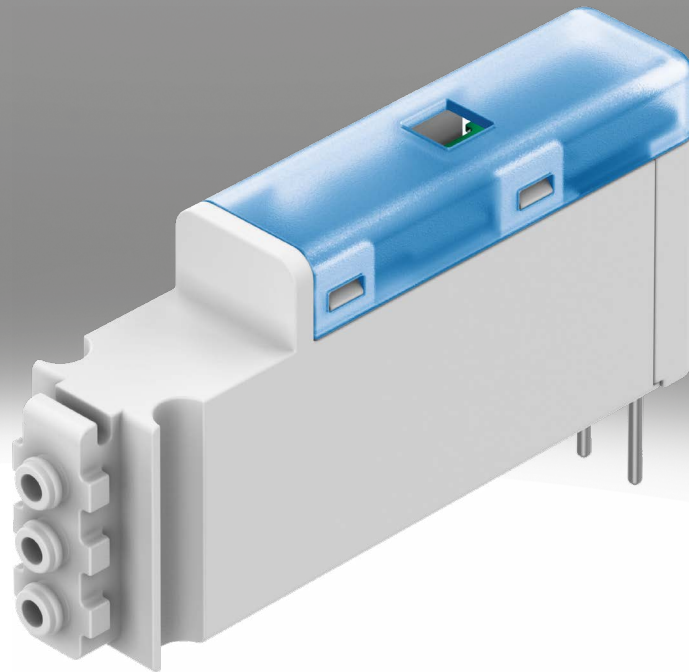


# Solenoid valve VOVK

**FESTO**



Type codes

001	Series	
<b>VOVK</b>	Solenoid valve	
002	Type of directional control valve	
<b>B</b>	Sub-base valve	
003	Design principle	
<b>T</b>	Poppet valve	
004	Size	
<b>6</b>	Size 6	
005	Valve function	
<b>M32C</b>	3/2-way valve, normally closed	
006	Reset method for single solenoid valves	
<b>M</b>	Mechanical spring	
007	Pilot air	
<b>N</b>	None	

008	Nominal operating voltage	
<b>1</b>	24 V DC	
<b>5</b>	12 V DC	
009	Electrical connection	
<b>H5Z</b>	Plug pattern H5Z	
<b>T1</b>	Pin	
010	Circuitry	
<b>P</b>	Protective circuit	
011	Pneumatic connection	
<b>F</b>	Flange/sub-base	
<b>B3</b>	Barbed connector, 3 mm	
<b>B3.2</b>	Barbed connector, 3.2 mm	
012	Connection direction	
<b>F</b>	Front	
<b>B</b>	Underneath	

## Key features

### At a glance

- Miniature switching valve 3/2 NC
- Optimised for very small installation spaces, with a width of only 5.9 mm
- Large pressure range from 0.9 ... 7 bar, therefore also vacuum-compatible
- Can be easily connected in series
- Very low power consumption of 0.5 W
- With LED and overvoltage protection circuit
- Different variants 12, 24 V DC, with plug+ cable (H5Z), or with pins (T1)

### Pneumatic connection

There are three versions for the various applications:

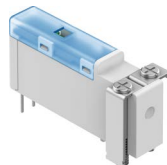
- [B3F], [B3.2F] As individual valve with barbed connectors
- [FB] With flanged connection underneath for mounting valves on a manifold duct plate
- [FF] Up to 20 valves that can be directly connected in series as a valve block, with barbed connector

[B3] Barbed connector, 3 mm



- Individual valve, direct, with barbed connectors

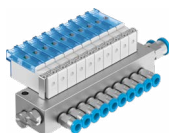
[F] Flange/sub-base



- Individual valves with flanged connection

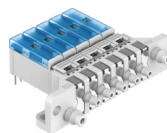
### Connection direction

[B] Underneath



- VOVK...-FB with flanged connection underneath
- Manifold block for an individual valve or for ten valves

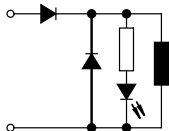
[F] Front



- VOVK...-FF with flanged connection on the front
- For easy side-by-side installation of 2 ... 20 valves
- Working ports with barbed connector for 3 mm or 4 mm O.D. tubing
- Common supply and exhaust with barbed connectors for 6 mm O.D. tubing

### Circuitry

[P] Protective circuit



## Data sheet

<b>General technical data</b>	
Type ID code	VOVK
Valve function	3/2-way, closed, single solenoid
Design	Connection direction underneath; connection direction at front; poppet valve with spring return
Sealing principle	Soft
Actuation type	Electrical
Reset method	Mechanical spring
Type of control	Electrical
Flow direction	Reversible
Exhaust function	Can be throttled
Manual override	None
Type of mounting	Via through-hole
Mounting position	Any
Nominal width	0.36 mm
Standard nominal flow rate	5.5 l/min
Width	5.9 mm
Switching time on <sup>1)</sup>	≤13 ms
Note on switching time on	≤= 6 ms at 0 < p < 6 bar, ≤= 13 ms at -1 < p < 0 bar
Switching time off	≤6 ms
Note on switching time off	At -1 < p < 6 bar

1) 13 ms with vacuum of -0.9 bar at port 1

<b>Operating and environmental conditions</b>	
Type ID code	VOVK
Operating medium	Compressed air to ISO 8573-1:2010 [6:4:1]
Note on the operating/pilot medium	Lubricated operation not possible
Operating pressure	-0.1 ... 0.7 MPa
Operating pressure	-1 ... 7 bar
Operating pressure	-14.5 ... 100 psi
Ambient temperature	5 ... 50°C
Temperature of medium	5 ... 50°C

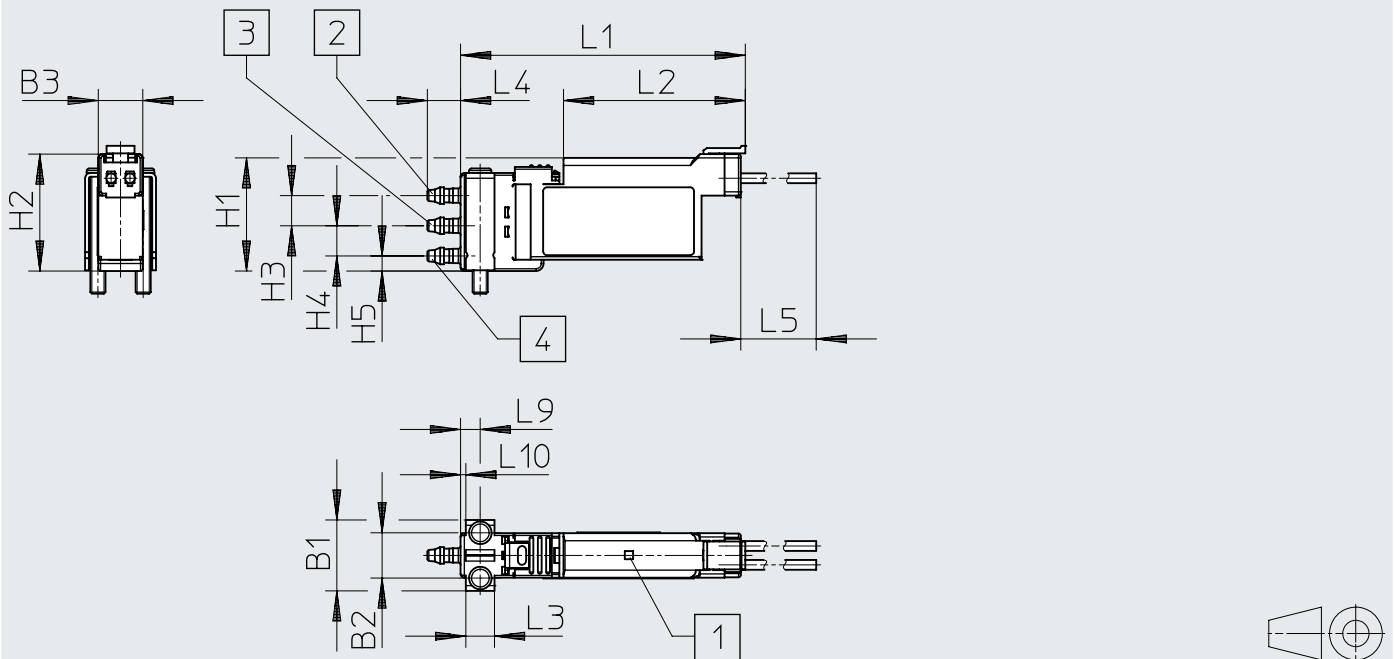
<b>Electrical data</b>	
Type ID code	VOVK
Nominal operating voltage DC <sup>1)</sup>	12 V, 24 V
Electrical connection	2-pin, cable
Electrical power consumption	0.5 W
Duty cycle	100% within 500 h

1) +/- 10%

<b>Materials</b>	
Type ID code	VOVK
Housing material	PBT
Spring material	High-alloy stainless steel
Note on materials	Contains paint-wetting impairment substances; RoHS-compliant

## Dimensions

## Dimensions – Individual valve with barbed connectors, connection H5

Download CAD data → [www.festo.com](http://www.festo.com)

- [1] LED indicator
- [2] Connection 1
- [3] Connection 2
- [4] Connection 3

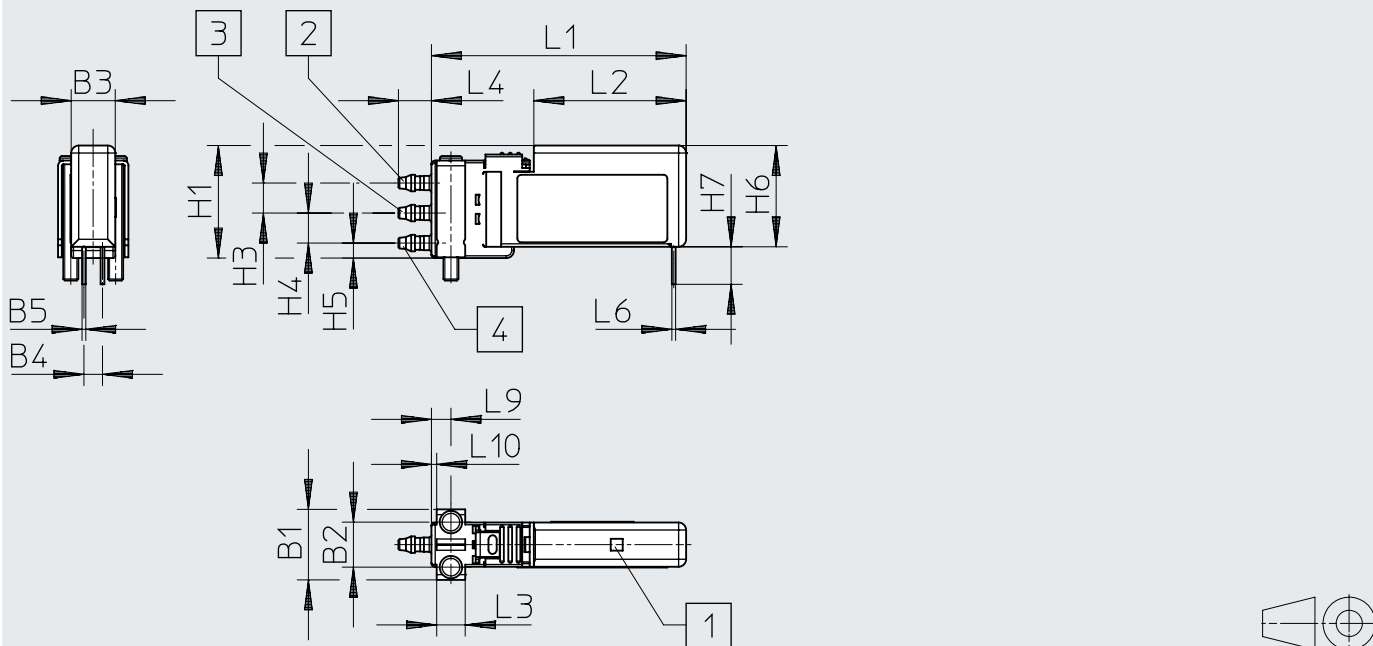
	B1	B2	B3	H1	H2	H3	H4	H5
VOVK-...-1H5ZP-B3F	9,4	6	5,9	15	15,5	4	4	2
VOVK-...-5H5ZP-B3F								
VOVK-...-1H5ZP-B3.2F								
VOVK-...-5H5ZP-B3.2F								

	L1	L2	L3	L4	L5	L9	L10
VOVK-...-1H5ZP-B3F	37,8	24,1	3,8	5	300	2,6	0,7
VOVK-...-5H5ZP-B3F							
VOVK-...-1H5ZP-B3.2F							
VOVK-...-5H5ZP-B3.2F							

## Dimensions

Dimensions – Individual valve with barbed connectors, connection via pins

Download CAD data → [www.festo.com](http://www.festo.com)



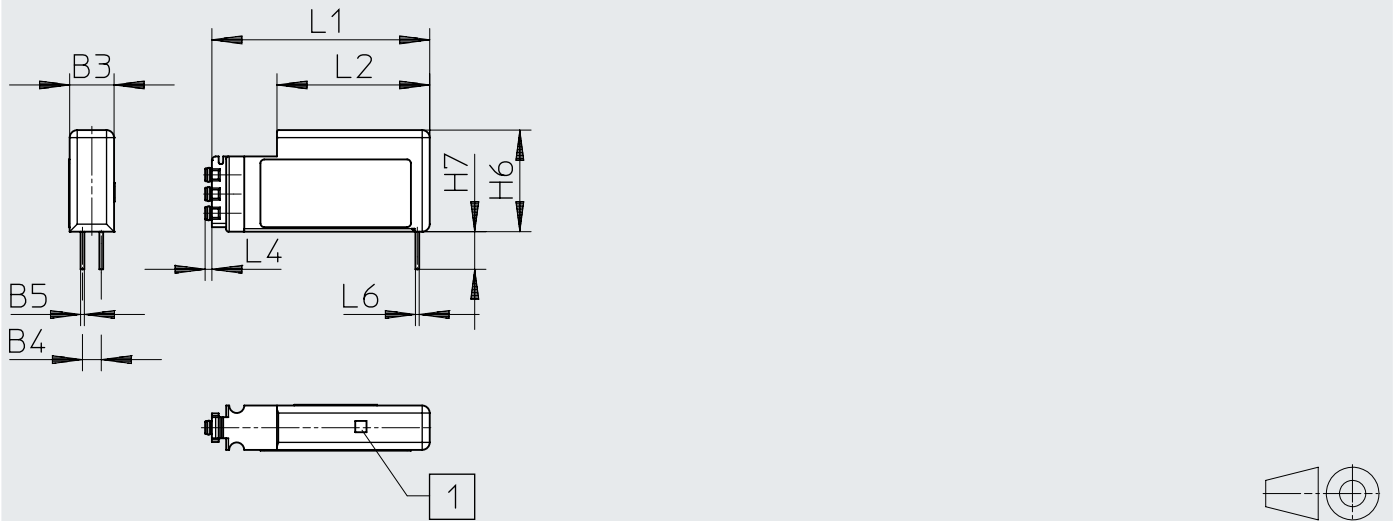
- [1] LED indicator
- [2] Connection 1
- [3] Connection 2
- [4] Connection 3

	B1	B2	B3	B4	B5	H1	H3	H4	H5
VOVK...-1T1P-B3F	9,4	6	5,9	2,5	0,5	15	4	4	2
VOVK...-5T1P-B3F									
VOVK...-1T1P-B3.2F									
VOVK...-5T1P-B3.2F									

	H6	H7	L1	L2	L3	L4	L6	L9	L10
VOVK...-1T1P-B3F	13,5	5	34	20,3	3,8	5	0,5	2,6	0,7
VOVK...-5T1P-B3F									
VOVK...-1T1P-B3.2F									
VOVK...-5T1P-B3.2F									

## Dimensions

Dimensions – Individual valve, flange at front, connection via pins

Download CAD data → [www.festo.com](http://www.festo.com)

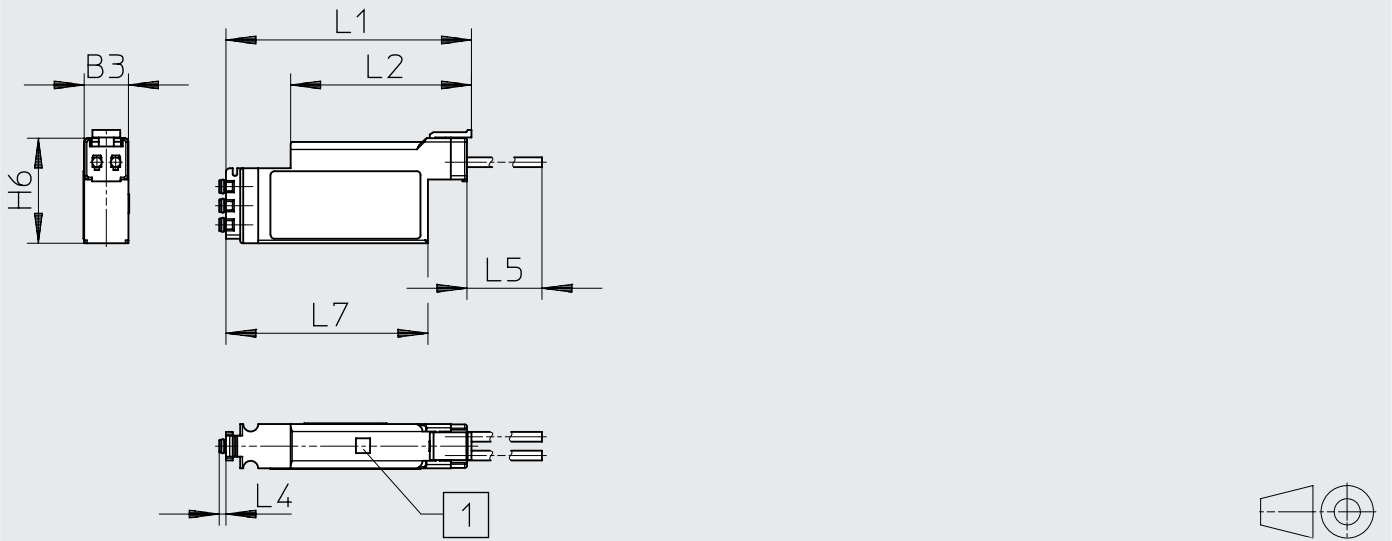
[1] LED indicator

	B3	B4	B5	H6	H7	L1	L2	L4	L6
VOVK...-1T1P-FF	5,9	2,5	0,5	13,5	5	29	20,3	0,9	0,5
VOVK...-5T1P-FF									

## Dimensions

Dimensions – Individual valve, flange at front, connection H5

Download CAD data → [www.festo.com](http://www.festo.com)



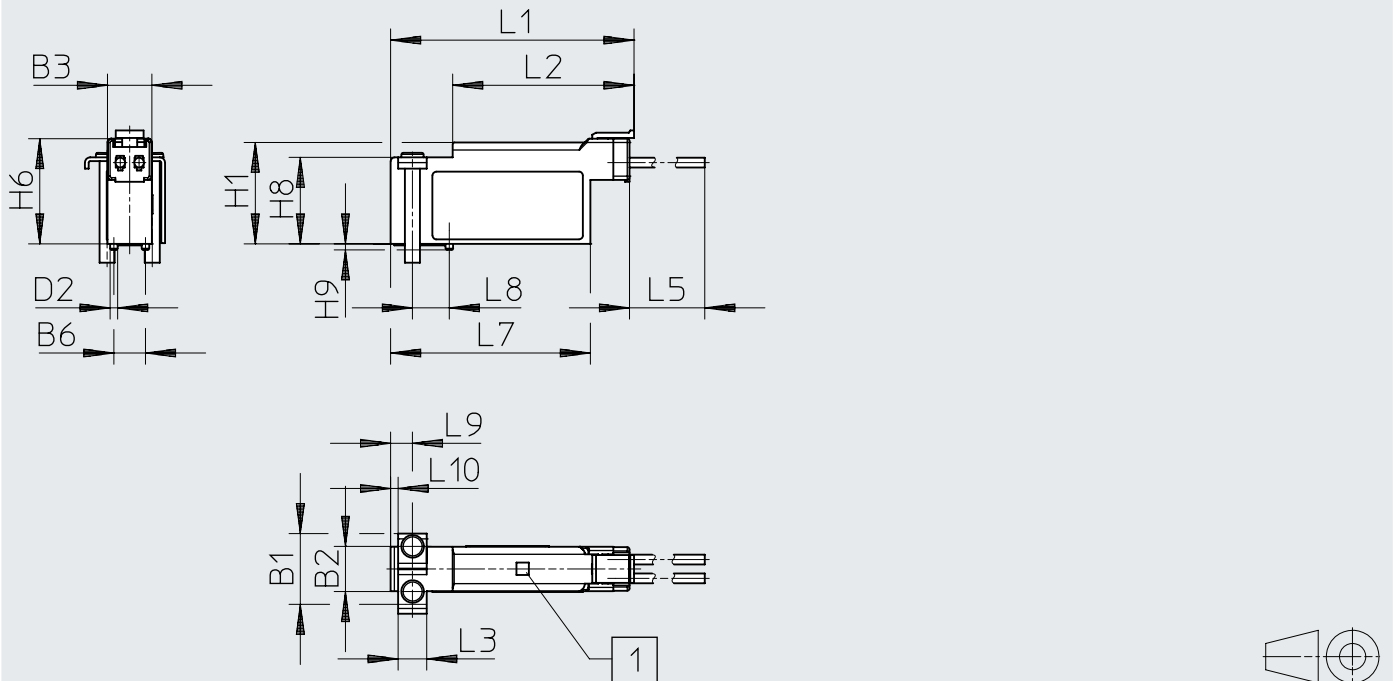
[1] LED indicator

	B3	H6	L1	L2	L4	L5	L7
VOVK...-1H5ZP-FF	5,9	14	32,8	24,1	0,9	300	27
VOVK...-5H5ZP-FF							



## Dimensions

Dimensions – Individual valve, flange underneath, connection H5

Download CAD data → [www.festo.com](http://www.festo.com)

[1] LED indicator

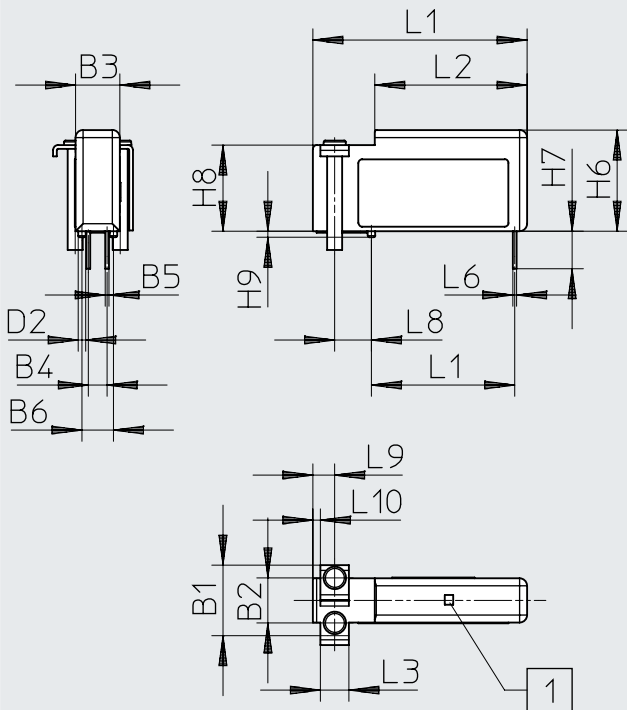
	B1	B2	B3	B6	D2 ∅	H1	H6	H8	H9
VOVK-...-1H5ZP-FB	9,4	6	5,9	4,2	1	13,5	14	11,5	0,8
VOVK-...-5H5ZP-FB									

	L1	L2	L3	L5	L7	L8	L9	L10
VOVK-...-1H5ZP-FB	32,4	24,1	3,8	300	26,6	4,9	2,9	1
VOVK-...-5H5ZP-FB								

## Dimensions

Dimensions – Individual valve, flange underneath, connection via pins

Download CAD data → [www.festo.com](http://www.festo.com)



[1] LED indicator

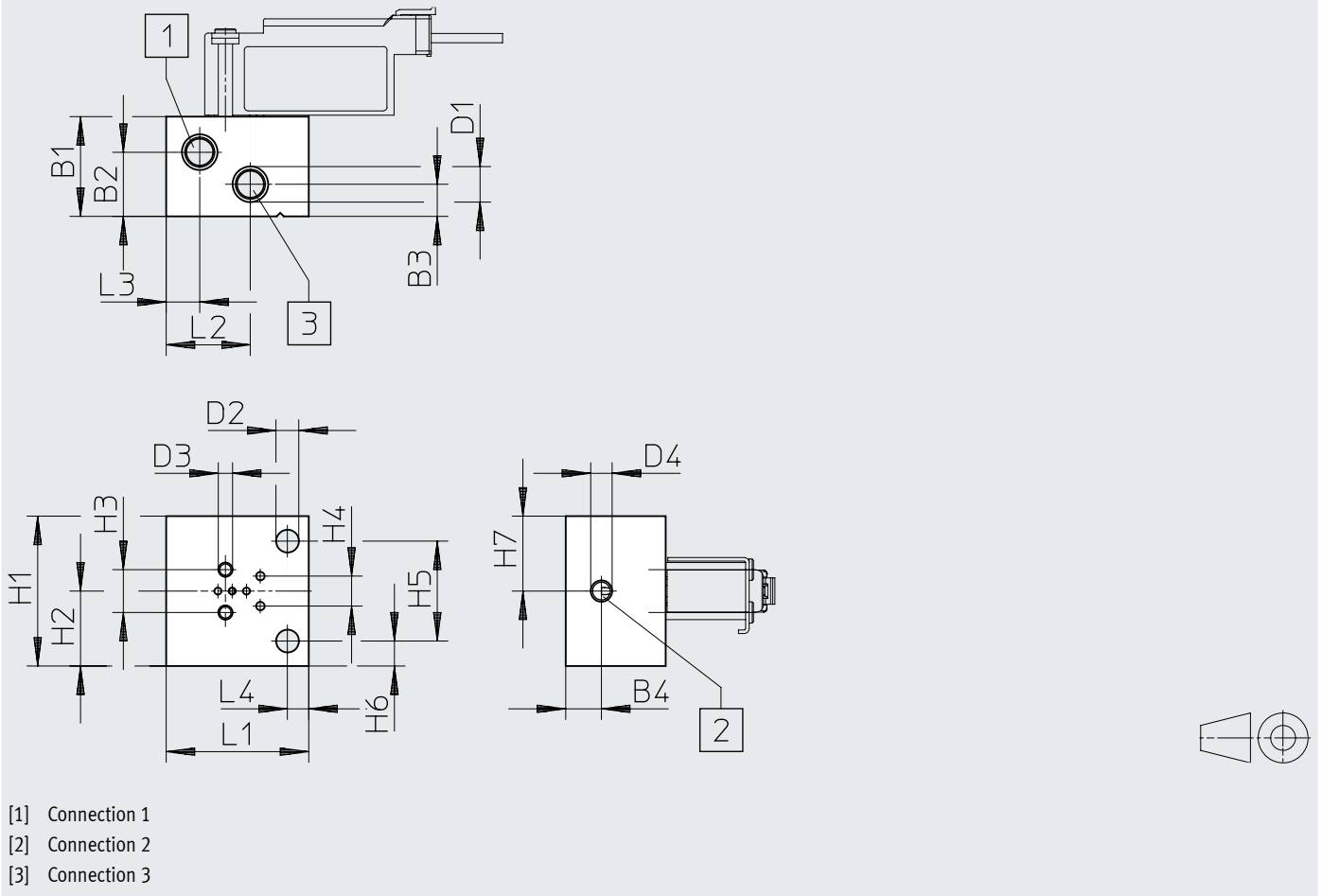


	B1	B2	B3	B4	B5	B6	D2 ∅	H6	H7
VOVK-...-1T1P-FB	9,4	6	5,9	2,5	0,5	4,2	1	13,5	5
VOVK-...-5T1P-FB									

	H8	H9	L1	L2	L3	L6	L8	L9	L10	L11
VOVK-...-1T1P-FB	11,5	0,8	28,6	20,3	3,8	0,5	4,9	2,9	1	19,1
VOVK-...-5T1P-FB										

## Dimensions

## Dimensions – Manifold block, individual valve

Download CAD data → [www.festo.com](http://www.festo.com)

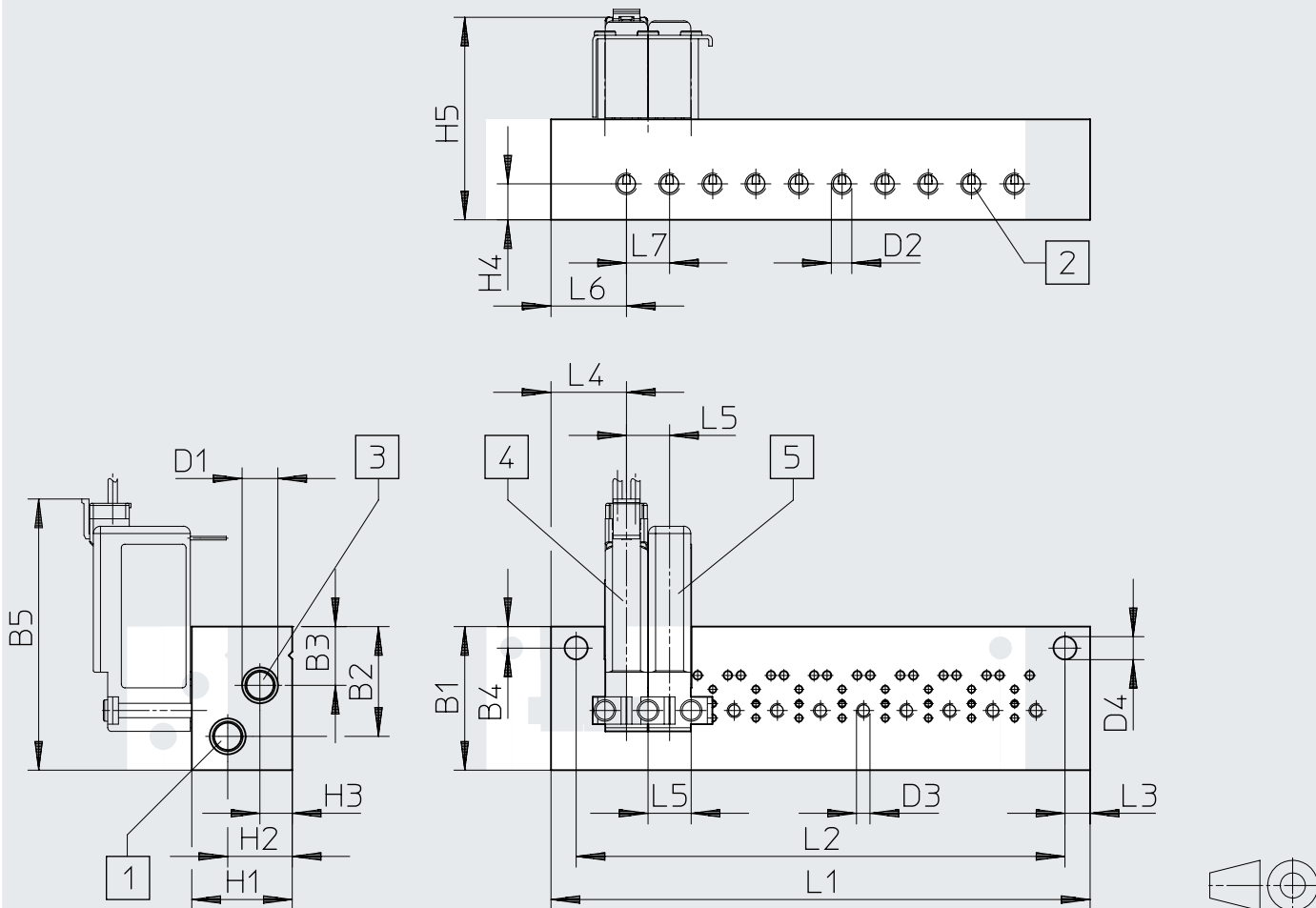
	B1	B2	B3	B4	D1	D2 ∅	D3	D4	H1
VOVK-...-H5ZP-FB	14	9	4,5	5	M5x0,8	3,2	M2x0,4	M3x0,5	21
VABS-C12-6-B-M3									

	H2	H3	H4	H5	H6	H7	L1	L2	L3	L4
VOVK-...-H5ZP-FB	10,5	6	4,2	14	3,5	10,5	20	11,8	4,7	3
VABS-C12-6-B-M3										

## Dimensions

Dimensions – Manifold block, 10 valves

Download CAD data → [www.festo.com](http://www.festo.com)



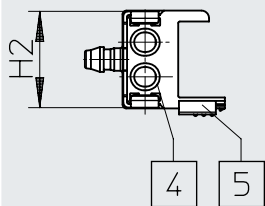
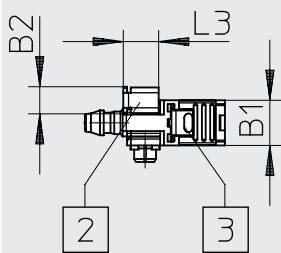
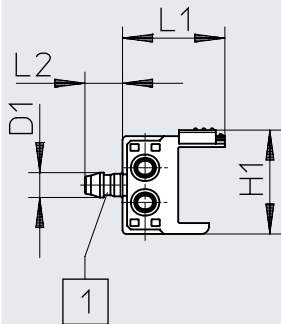
- [1] Connection 1
- [2] Connection 2
- [3] Connection 3
- [4] VOVK...H5ZP-FB
- [5] VOVK...T1P-FB

	B1	B2	B3	B4	B5	D1	D2	D3	D4 ∅	H1
VABM-C12-...	20	15,3	8,2	3	37,8	M5x0,8	M3x0,5	M2x1,4	3,2	14

	H2	H3	H4	H5	L1	L2	L3	L4	L5	L6	L7
VABM-C12-...	9	4,5	5	28,2	68	61	3,5	10,5	6	10,5	6

## Dimensions

## Dimensions – Sub-base

Download CAD data → [www.festo.com](http://www.festo.com)

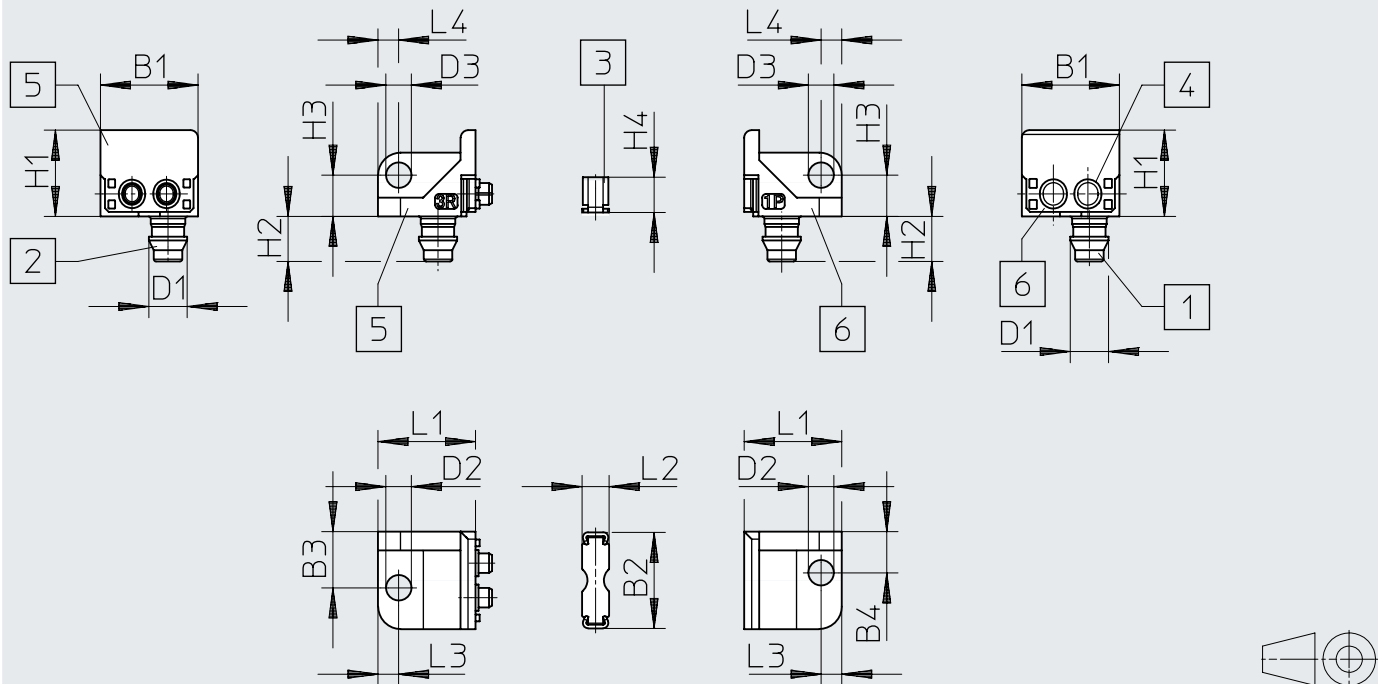
- [1] Connection 2
- [2] Connection fitting
- [3] Mounting bracket connection
- [4] O-ring
- [5] Cover

	B1	B2	D1 ∅	H1	H2	L1	L2	L3
VABS-C12-6-S-B3	6	3,6	2,6	13,9	12,8	13,6	5	4,7
VABS-C12-6-S-B4	6	3,6	3,3	13,9	12,8	13,6	5	4,7

## Dimensions

### Dimensions – End plates

Download CAD data → [www.festo.com](http://www.festo.com)

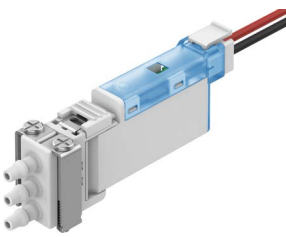


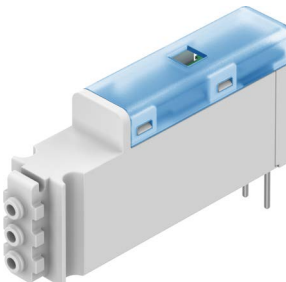
- [1] Connection 1
- [2] Connection 3
- [3] Connection fitting
- [4] O-ring
- [5] Left end plate
- [6] Right end plate

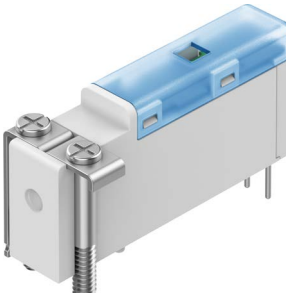
	B1	B2	B3	B4	D1 ∅	D2 ∅	D3 ∅	H1
VABS-C12-6-S	13	12,8	7,5	5,5	5,1	3,4	3,4	11,5

	H2	H3	H4	L1	L2	L3	L4
VABS-C12-6-S	6	5,5	4,7	13	3,6	2,8	2,8

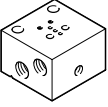
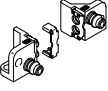
## Ordering data

Individual valve with barbed connectors				
	Nominal operating voltage	Electrical connection	Part no.	Type
	24 V DC	Plug pattern H5Z	8122783	VOVK-BT6-M32C-MN-1H5ZP-B3.2F
			8122782	VOVK-BT6-M32C-MN-1H5ZP-B3F
	12 V DC	Pin	8122785	VOVK-BT6-M32C-MN-1T1P-B3.2F
			8122784	VOVK-BT6-M32C-MN-1T1P-B3F
		Plug pattern H5Z	8122787	VOVK-BT6-M32C-MN-5H5ZP-B3.2F
			8122786	VOVK-BT6-M32C-MN-5H5ZP-B3F
	Pin	8122789	VOVK-BT6-M32C-MN-5T1P-B3.2F	
		8122788	VOVK-BT6-M32C-MN-5T1P-B3F	

Individual valve with flanged connection at front				
	Nominal operating voltage	Electrical connection	Part no.	Type
	24 V DC	Plug pattern H5Z	8122779	VOVK-BT6-M32C-MN-1H5ZP-FF
		Pin	8122778	VOVK-BT6-M32C-MN-1T1P-FF
	12 V DC	Plug pattern H5Z	8122781	VOVK-BT6-M32C-MN-5H5ZP-FF
		Pin	8122780	VOVK-BT6-M32C-MN-5T1P-FF

Individual valve with flanged connection underneath				
	Nominal operating voltage	Electrical connection	Part no.	Type
	24 V DC	Plug pattern H5Z	8122775	VOVK-BT6-M32C-MN-1H5ZP-FB
		Pin	8122774	VOVK-BT6-M32C-MN-1T1P-FB
	12 V DC	Plug pattern H5Z	8122777	VOVK-BT6-M32C-MN-5H5ZP-FB
		Pin	8122776	VOVK-BT6-M32C-MN-5T1P-FB

## Accessories

Connection accessories				
	Connection direction	Article comparison texts (description)	Part no.	Type
<b>Manifold block</b>				
	Underneath	Individual sub-base	★ 8122793	VABS-C12-6-B-M3
		For 10 valves	★ 8122794	VABM-C12-6M-M5-M3-10
<b>Manifold block SET</b>				
	Front	End plate SET for tubing O.D. 6 mm	★ 8122790	VABS-C12-6-S
		Manifold block for tubing O.D. 4 mm	★ 8122791	VABS-C12-6-S-B4
		Manifold block for tubing O.D. 3 mm	★ 8122792	VABS-C12-6-S-B3