

Media separated solenoid valve VYKA

FESTO



Characteristics

At a glance

[Link !\[\]\(99f58673407353e96a019fbca558fd72_img.jpg\) vyka](#)

Special characteristics:

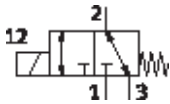
- Very easy to clean thanks to media separation
- Materials in contact with the media made of FDA-listed materials
- Developed according to ISO 13485
- High-quality materials, therefore also suitable for aggressive media
- High flow rate with small size
- High repetition accuracy, switching frequency and precision, therefore also suitable for extremely small volumes and dispensing tasks
- Low power consumption due to holding current reduction
- Very flexible in use thanks to 3/2-way and 2/2-way variants as well as 12 ... 26 V DC actuation

Function:

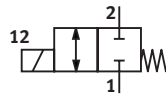
- The valve VYKA is a directly actuated valve with solenoid coil. When de-energised, the valve automatically returns to its normal position.
- The media separated solenoid valve VYKA is intended for mounting in laboratory devices. The valve is used to control gaseous and liquid media in line with its technical data.

Valve function

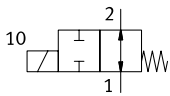
[M32] 3/2-way valve, normally closed or open



[M22C] 2/2-way valve, normally closed

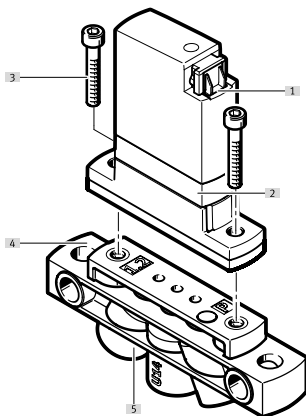


[M22U] 2/2-way valve, normally open



Series

[VYKA] Solenoid valve VYKA



[1] Terminal contact for E-box VAVE or connecting cable NEBV

[2] Solenoid valve VYKA

[3] Screws for mounting on the sub-base (included in the scope of delivery of the valves)

[4] Sub-base VABS

[5] Media connections

Type code

001	Series	
VYKA	Solenoid valve VYKA	

002	Directional control valve type	
F	Flanged valve	

003	Size	
7	Size 7	

004	Valve function	
M22C	2/2-way valve, normally closed	
M22U	2/2-way valve, normally open	
M32	3/2-way valve, normally closed or open	

005	Nominal width	
12	1.2 mm	

006	Pressure range [bar]	
D2	0 ... 2	

007	Housing material	
P	PEEK	

008	Diaphragm and sealing material	
E	EPDM	
F	FFPM	
V	FPM	

009	Nominal operating voltage	
5Y	12 V DC to 26 V DC	

010	Electrical connection	
Q7	Plug socket, connection pattern Q	

Datasheet

General technical data

Valve function	2/2-way, closed, monostable		2/2 open, single solenoid		3/2-way, monostable, open/closed
Flow rate Kv	0.013 m ³ /h	0.018 m ³ /h	0.013 m ³ /h	0.018 m ³ /h	0.021 m ³ /h
Water flow rate at max. operating pressure	0.3 l/min, 0.018 m ³ /h	0.027 m ³ /h, 0.45 l/min	0.3 l/min, 0.018 m ³ /h	0.024 m ³ /h, 0.4 l/min	0.5 l/min, 0.03 m ³ /h
Design	Rocker valve with diaphragm seal				
Type of reset	Mechanical spring				
Nominal size DN	–				
Size	7				
Grid dimension	7.5 mm				
Fluid connection	Flange				
Internal volume	15 µl fluid chamber valve, 21 µl valve with fluid connections	18 µl fluid chamber valve, 24 µl valve with fluid connections	15 µl fluid chamber valve, 21 µl valve with fluid connections	18 µl fluid chamber valve, 24 µl valve with fluid connections	16 µl fluid chamber valve, 26 µl valve with fluid connections

Operating and environmental conditions

Standard nominal flow rate (standardised to DIN 1343)	7 l/min	7.2 l/min	10 l/min	11 l/min
Nominal size DN	–			
Flow rate Kv	0.013 m ³ /h		0.018 m ³ /h	0.021 m ³ /h
Nominal pressure PN	–			
Medium	Liquid media, Gaseous media			
Pressure difference	–		2	
Ambient temperature	15 ... 50°C		0 ... 50°C	
Media temperature	–			
Leakage rate to EN 12266-1	–			
Corrosion resistance class CRC ¹⁾	0 - No corrosion stress			

1) More information www.festo.com/x/topic/crc

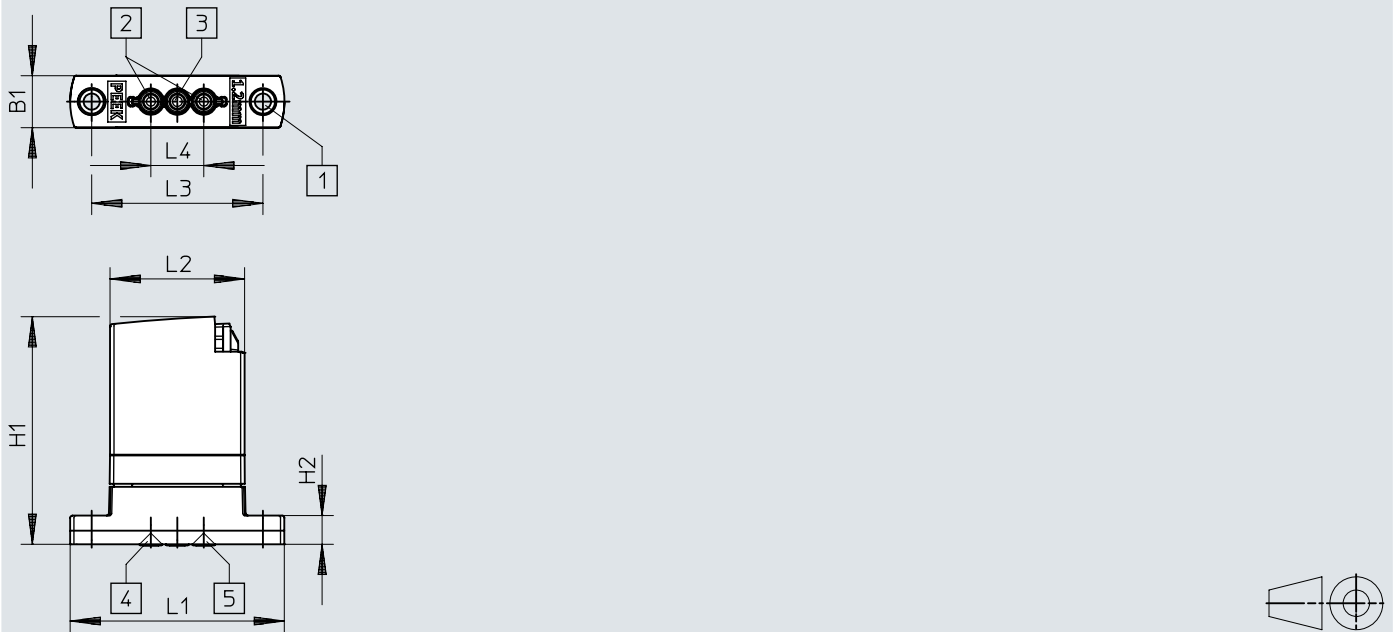
Electrical data

Operating voltage	–
CE mark (see declaration of conformity)	–
Insulation material class	B
Duty cycle	100% in conjunction with holding current reduction, Observe the notes on operating the solenoid valves.
Permissible voltage fluctuations	+/- 10%
Switching time on	–
Switching time off	–
Characteristic coil data	12 - 26 V DC: low-current phase 0.06 W, high-current phase 2.2 W

Materials

Material housing	PA-reinforced, PEEK, PPA reinforced
Note on materials	RoHS-compliant

Dimensions

Download CAD data www.festo.com

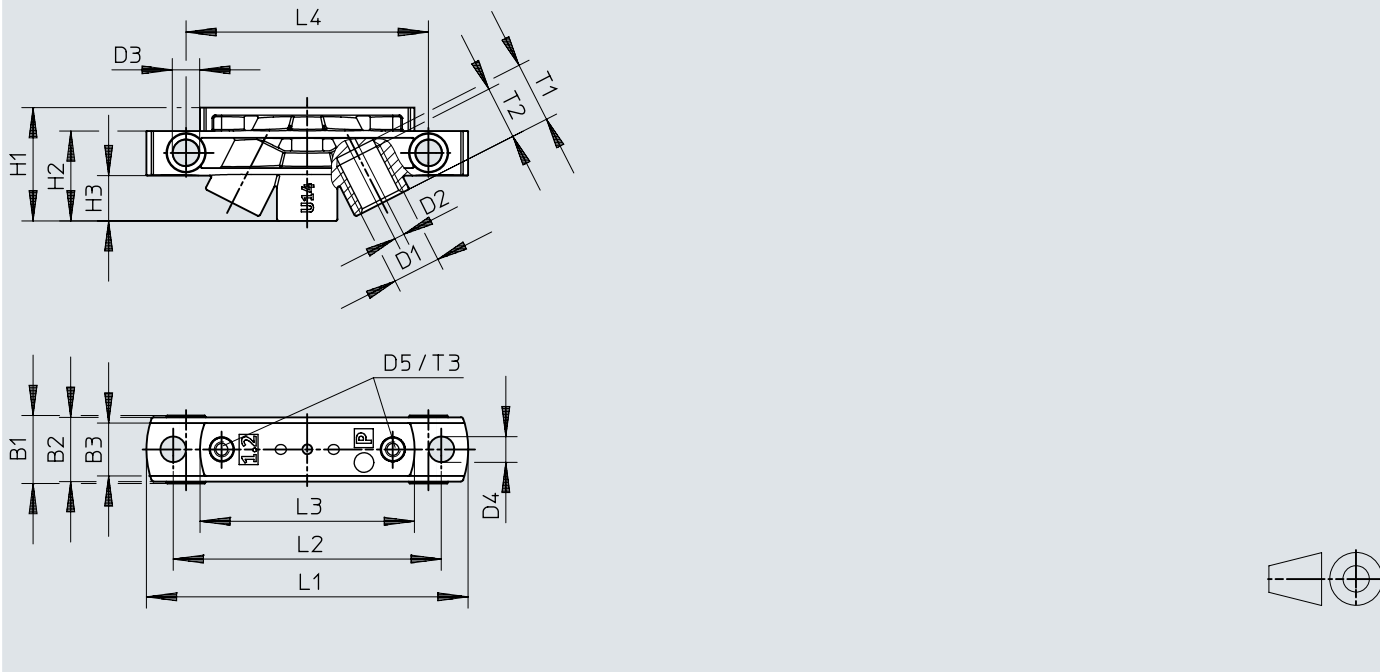
- [1] Mounting holes, screws enclosed for M2 threaded hole
- [2] Fluid connection
- [3] COM port (only 3/2-way variants)
- [4] Valve input only for VYKA-F7-M22U
- [5] Valve input only for VYKA-F7-M22C

	B1	H1	H2	L1	L2	L3 ± 0,1	L4 ± 0,1
VYKA-...	7	30	3,8	28,4	17,8	22,7	7

Dimensions


Dimensions – Manifold rail VABS-K1-7B-12-...


Download CAD data www.festo.com



	B1	B2	B3	D1	D2	D3	D4	D5		
VABS-K1-7B-12-U14-P	9	8,5	7	UNF 1/4-28	1,3	3,6	3,4	M2		
VABS-K1-7B-12-M5-P				M5						
	H1	H2	H3	L1	L2	L3	L4	T1	T2	T3
VABS-K1-7B-12-U14-P	15	11,9	6	42,6	35,5	28,4	32,1	8	7	5
VABS-K1-7B-12-M5-P										

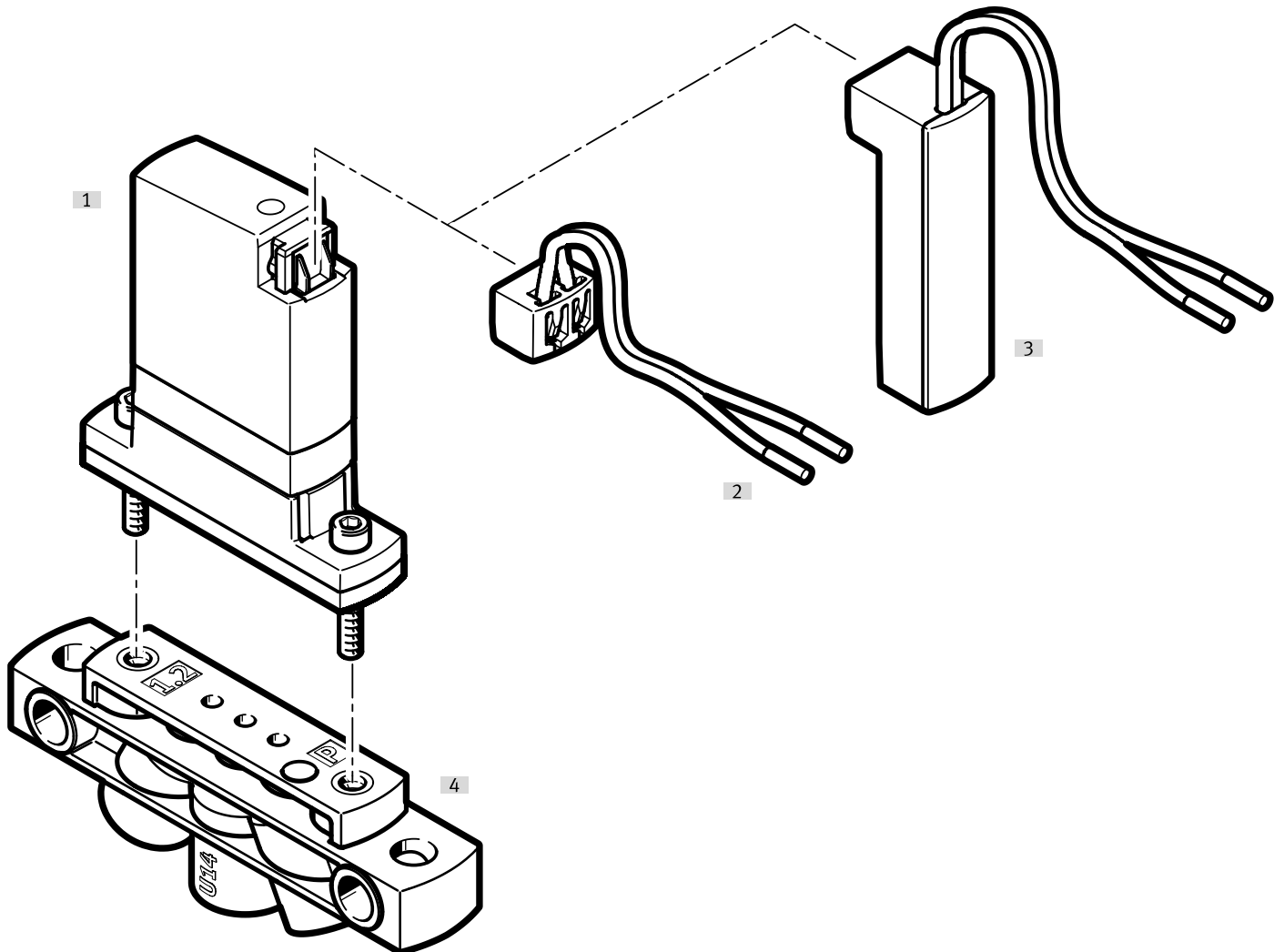
Ordering data

Ordering data, without vacuum					
	Size	Valve function	Design	Part no.	Type
	7	2/2-way, closed, monostable	Rocker valve with diaphragm seal	8114566	VYKA-F7-M22C-12-D2-PF-5YQ7
		2/2 open, single solenoid		8114568	VYKA-F7-M22U-12-D2-PF-5YQ7
		3/2-way, monostable, open/closed		8114564	VYKA-F7-M32-12-D2-PF-5YQ7

Ordering data, with vacuum					
	Size	Valve function	Design	Part no.	Type
	7	2/2-way, closed, monostable	Rocker valve with diaphragm seal	8170087	VYKA-F7-M22C-12-PV-5YQ7
		2/2 open, single solenoid		8170088	VYKA-F7-M22C-12-PE-5YQ7
				8170090	VYKA-F7-M22U-12-PV-5YQ7
				8170091	VYKA-F7-M22U-12-PE-5YQ7
		3/2-way, monostable, open/closed		8170084	VYKA-F7-M32-12-PV-5YQ7
			8170085	VYKA-F7-M32-12-PE-5YQ7	

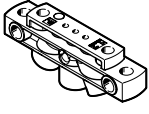


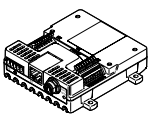



Peripherals

Peripherals overview




Accessories			→ Link
Type/order code	Description		
[1] Solenoid valve	VYKA		🔗 -
[2] Connecting cable	NEBV		9
[3] E-box	VAVE		9
[4] Sub-base	VABS		9

Accessories

Sub-base					
	Nominal size	Part no.	Type		
	1.2 mm	8047063	VABS-K1-7B-12-U14-P		
		8047064	VABS-K1-7B-12-M5-P		
E-box					
	Electrical connection	Part no.	Type		
	2-pin, Twin wire, Open end	8115100	VAVE-K1-7-5YL1-LR		
Connecting cable					
	Cable length	Part no.	Type		
	0.1 m	8115892	NEBV-Q7G2-PD-0.1-N-LE2		
	0.5 m	8115099	NEBV-Q7G2-PD-0.5-N-LE2		
Valve control module					
	Max. number of outputs	Part no.	Type		
	8	8088772	VAEM-V-S8EPRS2		
Push-in fitting					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Part no.	Type	
	Male thread M5	For tubing outside diameter of 4 mm	8085657	NPQR-DK-M5-Q4	
		For tubing outside diameter of 6 mm	8085659	NPQR-DK-M5-Q6	
Fitting					
	Fluid connection	Fluid connection 2	Size of pack	Part no.	Type
	UNF1/4-28	For tubing O.D. 3 mm	10	8104286	NLFA-D-U14-K3-PP-P10
		For tubing I.D. 1.2 mm		8104288	NLFA-D-U14-B1.2-PP-P10
		For tubing I.D. 2.1 mm		8104289	NLFA-D-U14-B2.1-PP-P10
		For tubing O.D. 1.6 mm (1/16")		8104285	NLFA-D-U14-K1.6-PP-P10
		For tubing O.D. 3.2 mm (1/8")		8104287	NLFA-D-U14-K3.2-PP-P10
Dosing nozzles					
	Length of dosing needle	Nominal width of dosing needle	Size of pack	Part no.	Type
	30 mm	0.3 mm	10	8104295	VAVN-N-A1.6-03-30-F-V1-P10
		0.6 mm		8104294	VAVN-N-A1.6-03-30-V1-P10
		1.2 mm		8104290	VAVN-N-A1.6-06-30-V1-P10
	60 mm	0.3 mm		8104296	VAVN-N-A1.6-06-30-V1-P10
		0.6 mm		8104291	VAVN-N-A1.6-12-30-V1-P10
		0.3 mm		8104298	VAVN-N-A1.6-03-60-F-V1-P10
		0.6 mm		8104297	VAVN-N-A1.6-03-60-V1-P10
		0.3 mm		8104292	VAVN-N-A1.6-06-60-V1-P10
		0.6 mm		8104299	VAVN-N-A1.6-06-60-V1-P10

Accessories

Dosing nozzles					
	Length of dosing needle	Nominal width of dosing needle	Size of pack	Part no.	Type
	60 mm	1.2 mm	10	8104293	VAVN-N-A1.6-12-60-V1-P10