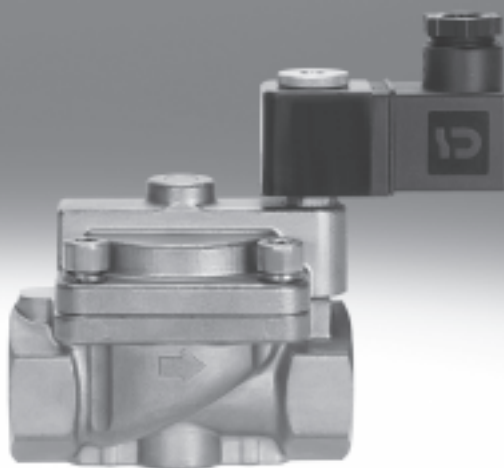


Solenoid valves VZWP, servo-controlled

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Solenoid valves VZWP, servo-controlled

Key features and overview

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Function

The solenoid valve VZWP-L-... is a servo-controlled 2/2-way valve with solenoid coil. The solenoid valve is closed when de-energised. When energised, the differential pressure

from the secondary side of the piston is reduced via the servo hole. The differential pressure lifts the piston away from the valve seat.

General

-  - Connecting thread
G $\frac{1}{4}$... G1
-  - Flow rate Kv
1.5 ... 11.5 m³/h

Application

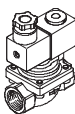
- All applications with a differential pressure of 0.5 bar
- Applications with an open medium circuit

Design

- The valve features a simple, sturdy design. The valve drive only fulfils a pilot control function, which relieves the burden on the main sealing element

Advantages

- High pressures can be controlled with large nominal diameters using small magnets
- The valves can be operated with air, neutral gases and neutral liquids
- The N/C version guarantees that the valve will be closed in the event of a voltage failure

Version	Type	Process valve connection	Nominal size (DN)	Process valve nominal pressure (PN)	→ Page/Internet
	VZWP-L-...	G $\frac{1}{4}$	13	40	4
		G $\frac{3}{8}$	13		
		G $\frac{1}{2}$	13		
		G $\frac{3}{4}$	25		
		G1	25		

Solenoid valves VZWP, servo-controlled

Type codes

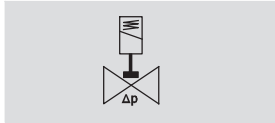
		VZWP	-	L	-	M22C	-	G1	-	130	-	V	-	1A	-	P4	-	40
Type																		
VZWP	Electrically actuated process valve, servo-controlled																	
Valve type																		
L	In-line valve																	
Valve function																		
M22C	2/2-way valve, normally closed (N/C), mechanical reset																	
Process valve connection																		
G14	Thread G $\frac{1}{4}$																	
G38	Thread G $\frac{3}{8}$																	
G12	Thread G $\frac{1}{2}$																	
G34	Thread G $\frac{3}{4}$																	
G1	Thread G1																	
Nominal size (DN)																		
130	13 mm																	
250	25 mm																	
Sealing material																		
-	NBR																	
V	FPM																	
Nominal voltage																		
1A	24 V DC																	
2A	110 V AC																	
3A	230 V AC																	
Electrical connection																		
P4	Plug socket, 3-pin																	
Operating pressure																		
40	Max. 40 bar																	

Solenoid valves VZWP, servo-controlled

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Technical data

Function



 Flow rate Kv
1.5 ... 11.5 m³/h

 Connecting thread
G¹/₄ ... G1



General technical data					
Process valve connection	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ³ / ₄	G1
Nominal size (DN)	13	13	13	25	25
Valve function	2/2-way, single solenoid, closed				
Design	Piloted piston poppet valve				
Type of mounting	In-line installation				
Actuation type	Electric				
Type of control	Piloted				
Manual override	None				
Mounting position	Coil preferably on top				
Sealing principle	Soft				
Direction of flow	Non-reversible				
Max. viscosity [mm ² /s]	22				
Protection class	IP65				
Product weight [g]	600	575	550	1,500	1,400

Operating and environmental conditions					
Process valve connection	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ³ / ₄	G1
Switching time on [ms]	100	100	100	130	130
Switching time off [ms]	250	250	250	300	300
Standard nominal flow rate [l/min]	1,600	2,100	2,650	8,750	12,250
Flow rate [m ³ /h]	1.5	2	2.5	8.2	11.5
Operating pressure [bar]	0.5 ... 40				
Process valve nominal pressure (PN)	40				
Differential pressure [bar]	0.5				
Process valve operating medium	Neutral liquids, neutral gases, filtered compressed air 40μF (lubricated or unlubricated), other media on request				
Ambient temperature [°C]	−10 ... 35				
Temperature of medium [°C]	−10 ... 80				
Leak rate to EN 12266-1	A				
Corrosion resistance class CRC ¹⁾	1				

1) Corrosion resistance class 1 according to Festo standard 940 070

Components subject to low corrosion stress. 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.

Materials		
Solenoid valves		Material number
1 Housing	Cast brass	CW617N
2 Screws	High-alloy stainless steel	1.4301
3 Seals	NBR, FPM	–
– Note on materials	Contains PWIS (paint-wetting impairment substances), RoHS-compliant	–

Solenoid valves VZWP, servo-controlled

Technical data

Electrical data – 24 V DC			
			VZWP- ...1- ...
Electrical connection			Type A
			Plug
			To EN 175301-803
Coil characteristics	Direct current DC	[V]	24
		[W]	6.8
Permissible voltage fluctuations		[%]	±10
Duty cycle		[%]	100
Protection class			IP65

Electrical data – 110 V AC				VZWP- ...2A- ...
Electrical connection				Type A
				Plug
				To EN 175301-803
Coil characteristics	Alternating current AC	[V]		110
		[Hz]		50, 60
	Pick-up power	[VA]		10.5
	Holding power	[VA]		8
Permissible voltage fluctuations			[%]	±10
Duty cycle			[%]	100
Protection class				IP65
CE marking (see declaration of conformity)				To EU Low Voltage Directive

Electrical data – 230 V AC				VZWP- ...3A- ...
Electrical connection				Type A
				Plug
				To EN 175301-803
Coil characteristics	Alternating current AC	[V]		230
		[Hz]		50, 60
	Pick-up power	[VA]		10.5
	Holding power	[VA]		7.6
Permissible voltage fluctuations			[%]	±10
Duty cycle			[%]	100
Protection class				IP65
CE marking (see declaration of conformity)				To EU Low Voltage Directive

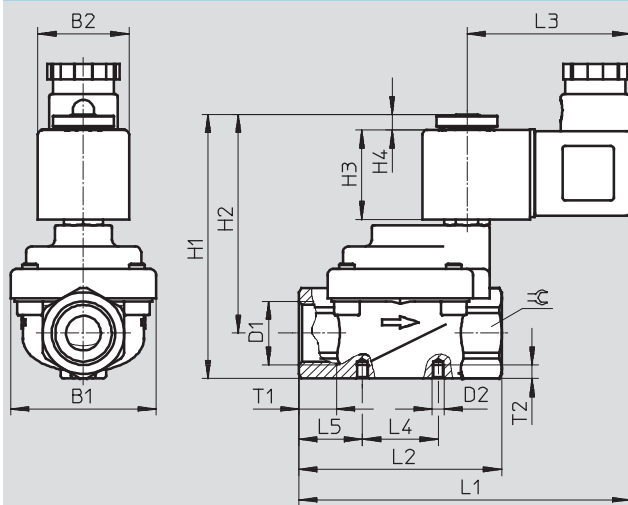
Solenoid valves VZWP, servo-controlled

Technical data

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Dimensions

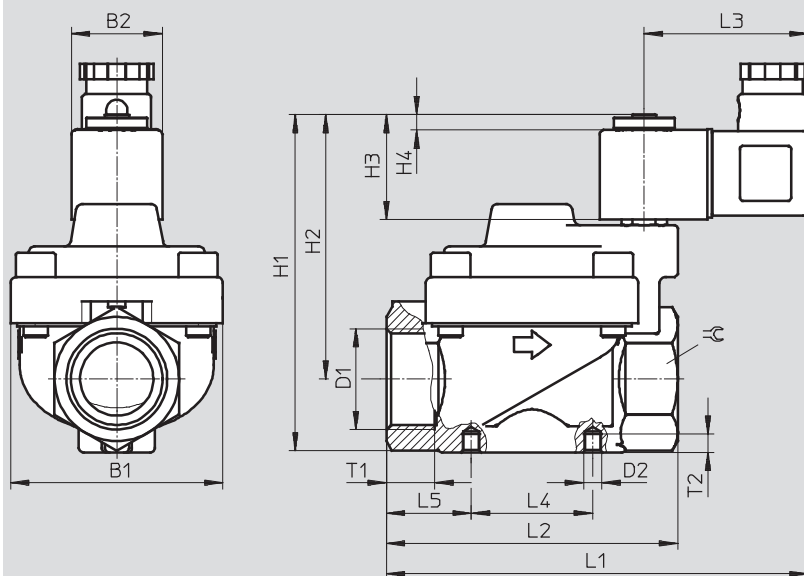
Download CAD data → www.festo.com



	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5	T1	T2	≙
VZWP-L-M22C-G14-130-...	48	30	G1/4	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27
VZWP-L-M22C-G3/8-130-...	48	30	G3/8	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27
VZWP-L-M22C-G1/2-130-...	48	30	G1/2	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27

Dimensions

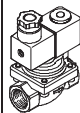
Download CAD data → www.festo.com



	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5	T1	T2	≙
VZWP-L-M22C-G3/4-250-...	70	30	G3/4	M6	112	88	30	5	139	96	54	40	28	16	6	41
VZWP-L-M22C-G1-250-...	70	30	G1	M6	112	88	30	5	139	96	54	40	28	16	6	41

Solenoid valves VZWP, servo-controlled

Technical data

Ordering data		Part No.	Type
	Process valve connection		
	G $\frac{1}{4}$	1489940	VZWP-L-M22C-G14-130-1P4-40
		1489950	VZWP-L-M22C-G14-130-2AP4-40
		1489960	VZWP-L-M22C-G14-130-3AP4-40
		1489945	VZWP-L-M22C-G14-130-V-1P4-40
		1489955	VZWP-L-M22C-G14-130-V-2AP4-40
		1489965	VZWP-L-M22C-G14-130-V-3AP4-40
	G $\frac{3}{8}$	1489941	VZWP-L-M22C-G38-130-1P4-40
		1489951	VZWP-L-M22C-G38-130-2AP4-40
		1489961	VZWP-L-M22C-G38-130-3AP4-40
		1489946	VZWP-L-M22C-G38-130-V-1P4-40
		1489956	VZWP-L-M22C-G38-130-V-2AP4-40
		1489966	VZWP-L-M22C-G38-130-V-3AP4-40
	G $\frac{1}{2}$	1489942	VZWP-L-M22C-G12-130-1P4-40
		1489952	VZWP-L-M22C-G12-130-2AP4-40
		1489962	VZWP-L-M22C-G12-130-3AP4-40
		1489947	VZWP-L-M22C-G12-130-V-1P4-40
		1489957	VZWP-L-M22C-G12-130-V-2AP4-40
		1489967	VZWP-L-M22C-G12-130-V-3AP4-40
	G $\frac{3}{4}$	1489943	VZWP-L-M22C-G34-250-1P4-40
		1489953	VZWP-L-M22C-G34-250-2AP4-40
		1489963	VZWP-L-M22C-G34-250-3AP4-40
		1489948	VZWP-L-M22C-G34-250-V-1P4-40
		1489958	VZWP-L-M22C-G34-250-V-2AP4-40
		1489968	VZWP-L-M22C-G34-250-V-3AP4-40
	G1	1489944	VZWP-L-M22C-G1-250-1P4-40
		1489954	VZWP-L-M22C-G1-250-2AP4-40
		1489964	VZWP-L-M22C-G1-250-3AP4-40
		1489949	VZWP-L-M22C-G1-250-V-1P4-40
		1489959	VZWP-L-M22C-G1-250-V-2AP4-40
		1489969	VZWP-L-M22C-G1-250-V-3AP4-40

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Custom Automation Components
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With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



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