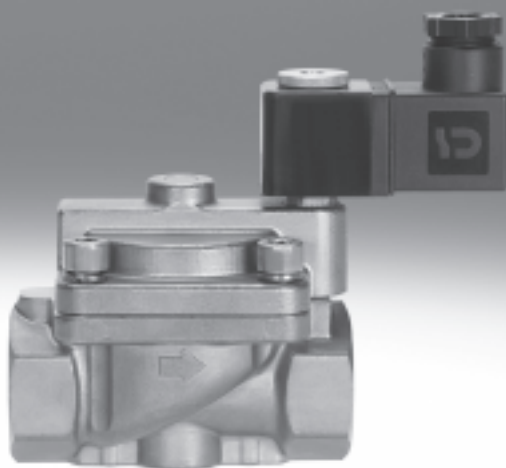


Solenoid valves VZWP, servo-controlled, NPT

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Solenoid valves VZWP, servo-controlled, NPT

Key features and overview

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

- N- Connecting thread
NPT $\frac{1}{4}$... NPT1
-  - Flow rate Kv
1.5 ... 11.5 m³/h

Application

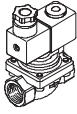
- All applications with a differential pressure of 0.5 bar
- Applications with an open medium circuit

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, NPT

Type codes

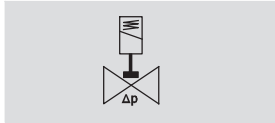
		VZWP	–	L	–	M22C	–	N1	–	130	–	V	–	1A	–	P4	–	40
Type																		
VZWP	Electrically actuated process valve, servo-controlled																	
Valve type																		
L	In-line valve																	
Valve function																		
M22C	2/2-way valve, normally closed (N/C), mechanical reset																	
Process valve connection																		
N14	NPT ¼																	
N38	NPT ⅜																	
N12	NPT ½																	
N34	NPT ¾																	
N1	NPT 1																	
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, NPT

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Technical data

Function



 Flow rate Kv
1.5 ... 11.5 m³/h

-N- Connecting thread
NPT¹/₄ ... NPT1



General technical data					
Process valve connection	NPT ¹ / ₄	NPT ³ / ₈	NPT ¹ / ₂	NPT ³ / ₄	NPT1
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	NPT ¹ / ₄	NPT ³ / ₈	NPT ¹ / ₂	NPT ³ / ₄	NPT1
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, NPT

Technical data

Electrical data – 24 V AC				
			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

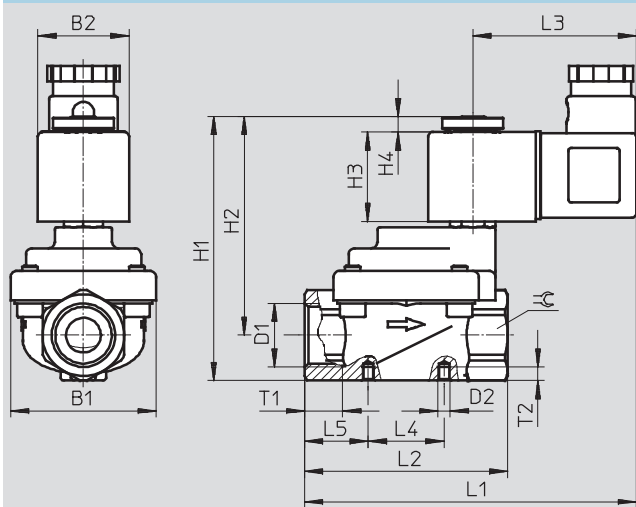
Solenoid valves VZWP, servo-controlled, NPT

Technical data

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Dimensions

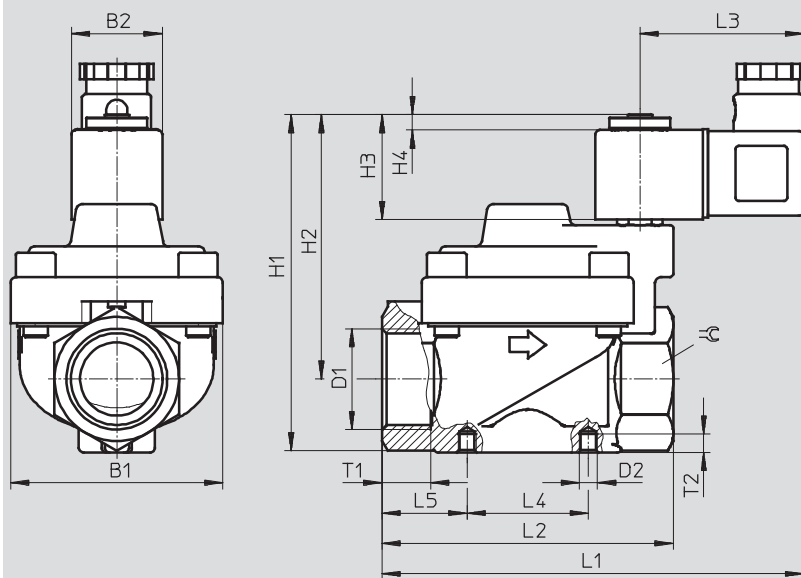
Download CAD Data → www.festo.com/us/cad



	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5	T1	T2	≙
VZWP-L-M22C-N14-130-...	48	30	NPT1/4	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27
VZWP-L-M22C-N38-130-...	48	30	NPT3/8	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27
VZWP-L-M22C-N12-130-...	48	30	NPT1/2	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27

Dimensions

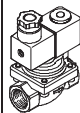
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	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5	T1	T2	≙
VZWP-L-M22C-N34-250-...	70	30	NPT3/4	M6	112	88	30	5	139	96	54	40	28	16	6	41
VZWP-L-M22C-N1-250-...	70	30	NPT1	M6	112	88	30	5	139	96	54	40	28	16	6	41

Solenoid valves VZWP, servo-controlled, NPT

Technical data

Ordering data		Part No.	Type
	NPT $\frac{1}{4}$	1489970	VZWP-L-M22C-N14-130-1P4-40
		1489980	VZWP-L-M22C-N14-130-2AP4-40
		1489990	VZWP-L-M22C-N14-130-3AP4-40
		1489975	VZWP-L-M22C-N14-130-V-1P4-40
		1489985	VZWP-L-M22C-N14-130-V-2AP4-40
		1489995	VZWP-L-M22C-N14-130-V-3AP4-40
	NPT $\frac{3}{8}$	1489971	VZWP-L-M22C-N38-130-1P4-40
		1489981	VZWP-L-M22C-N38-130-2AP4-40
		1489991	VZWP-L-M22C-N38-130-3AP4-40
		1489976	VZWP-L-M22C-N38-130-V-1P4-40
		1489986	VZWP-L-M22C-N38-130-V-2AP4-40
		1489996	VZWP-L-M22C-N38-130-V-3AP4-40
	NPT $\frac{1}{2}$	1489972	VZWP-L-M22C-N12-130-1P4-40
		1489982	VZWP-L-M22C-N12-130-2AP4-40
		1489992	VZWP-L-M22C-N12-130-3AP4-40
		1489977	VZWP-L-M22C-N12-130-V-1P4-40
		1489987	VZWP-L-M22C-N12-130-V-2AP4-40
		1489997	VZWP-L-M22C-N12-130-V-3AP4-40
	NPT $\frac{3}{4}$	1489973	VZWP-L-M22C-N34-250-1P4-40
		1489983	VZWP-L-M22C-N34-250-2AP4-40
		1489993	VZWP-L-M22C-N34-250-3AP4-40
		1489978	VZWP-L-M22C-N34-250-V-1P4-40
		1489988	VZWP-L-M22C-N34-250-V-2AP4-40
		1489998	VZWP-L-M22C-N34-250-V-3AP4-40
	NPT1	1489974	VZWP-L-M22C-N1-250-1P4-40
		1489984	VZWP-L-M22C-N1-250-2AP4-40
		1489994	VZWP-L-M22C-N1-250-3AP4-40
		1489979	VZWP-L-M22C-N1-250-V-1P4-40
		1489989	VZWP-L-M22C-N1-250-V-2AP4-40
		1489999	VZWP-L-M22C-N1-250-V-3AP4-40

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Festo North America

Festo Regional Contact Center

5300 Explorer Drive
Mississauga, Ontario L4W 5G4
Canada

USA Customers:

For ordering assistance,

Call: 1.800.99.FESTO (1.800.993.3786)

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For technical support,

Call: 1.866.GO.FESTO (1.866.463.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

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Canadian Customers:

Call: 1.877.GO.FESTO (1.877.463.3786)

Fax: 1.877.FX.FESTO (1.877.393.3786)

Email: festo.canada@ca.festo.com

USA Headquarters

Festo Corporation
395 Moreland Road
P.O. Box 18023
Hauppauge, NY 11788, USA
www.festo.com/us

USA Sales Offices

Appleton

North 922 Tower View Drive, Suite N
Greenville, WI 54942, USA

Boston

120 Presidential Way, Suite 330
Woburn, MA 01801, USA

Chicago

1441 East Business Center Drive
Mt. Prospect, IL 60056, USA

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1825 Lakeway Drive, Suite 600
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Detroit – Automotive Engineering Center

2601 Cambridge Court, Suite 320
Auburn Hills, MI 48326, USA

New York

395 Moreland Road
Hauppauge, NY 11788, USA

Silicon Valley

4935 Southfront Road, Suite F
Livermore, CA 94550, USA

United States



USA Headquarters, East: Festo Corp., 395 Moreland Road, Hauppauge, NY 11788

Phone: 1.631.435.0800; Fax: 1.631.435.8026;

Email: info@festo-usa.com

www.festo.com/us

Canada



Headquarters: Festo Inc., 5300 Explorer Drive, Mississauga, Ontario L4W 5G4

Phone: 1.905.624.9000; Fax: 1.905.624.9001;

Email: festo.canada@ca.festo.com

www.festo.ca

Mexico



Headquarters: Festo Pneumatic, S.A., Av. Ceylán 3, Col. Tequesquahuac,
54020 Tlalneapantla, Edo. de México

Phone: 011 52 [55] 53 21 66 00; Fax: 011 52 [55] 53 21 66 65;

Email: festo.mexico@mx.festo.com

www.festo.com/mx

Central USA

Festo Corporation
1441 East Business
Center Drive
Mt. Prospect, IL 60056, USA
Phone: 1.847.759.2600
Fax: 1.847.768.9480



Western USA

Festo Corporation
4935 Southfront Road,
Suite F
Livermore, CA 94550, USA
Phone: 1.925.371.1099
Fax: 1.925.245.1286



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