

Solenoid valves VZWP, servo-controlled



# Solenoid valves VZWP, servo-controlled



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

-  - Connecting thread  
G $\frac{1}{4}$  ... G1
-  - Flow rate Kv  
1.5 ... 11.5 m<sup>3</sup>/h

## Application

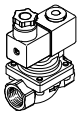
- All applications with a differential pressure of 0.5 bar
- Applications with an open medium circuit

## 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 - G14 - 130 - V - 1 - P4 - 40

**Type**

VZWP	Electrically actuated process valve, servo-controlled
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**Valve type**

L	In-line valve
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**Valve function**

M22C	2/2-way valve, normally closed (N/C), mechanical reset
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**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**

1	24 V DC
2A	110 V AC
3A	230 V AC

**Electrical connection**

P4	Plug socket, 3-pin
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**Operating pressure**

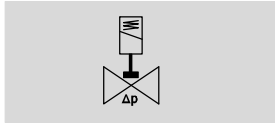
40	Max. 40 bar
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# Solenoid valves VZWP, servo-controlled

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Technical data

Function



Flow rate Kv  
1.5 ... 11.5 m<sup>3</sup>/h

Connecting thread  
G $\frac{1}{4}$  ... G1



General technical data					
Process valve connection	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$	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 <sup>2</sup> /s]	22				
Protection class	IP65				
Product weight [g]	600	575	550	1,500	1,400

Operating and environmental conditions					
Process valve connection	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{3}{4}$	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 <sup>3</sup> /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	Compressed air in accordance with ISO 8573-1:2010 [7:4:4] Neutral liquids Inert gases Further media upon request				
Ambient temperature [°C]	-10 ... 35				
Temperature of medium [°C]	-10 ... 80				
Leak rate to EN 12266-1	A				
Corrosion resistance class CRC <sup>1)</sup>	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
Housing	Cast brass	CW617N
Screws	High-alloy stainless steel	1.4301
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	110 V DC	230 V DC	
Electrical connection		Type A	Type A	Type A	
		Plug	Plug	Plug	
		To EN 175301-803	To EN 175301-803	To EN 175301-803	
Coil characteristics					
Direct current DC	[V]	24	–	–	
	[W]	6.8	–	–	
Alternating current AC	[V]	–	110	230	
	[Hz]	–	50, 60	50, 60	
Pick-up power	[VA]	–	10.5	10.5	
Holding power	[VA]	–	8	7.6	
Permissible voltage fluctuations	[%]	±10	±10	±10	
Duty cycle	[%]	100	100	100	
Protection class		IP65	IP65	IP65	
CE marking (see declaration of conformity)		–	To EU Low Voltage Directive	To EU Low Voltage Directive	

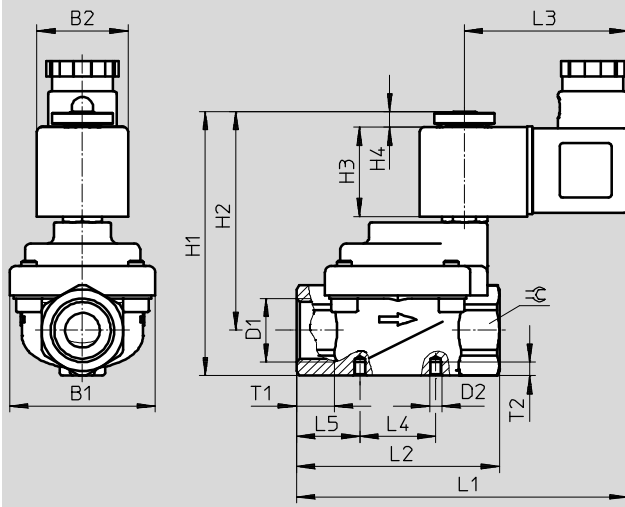
# Solenoid valves VZWP, servo-controlled

Technical data

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## Dimensions

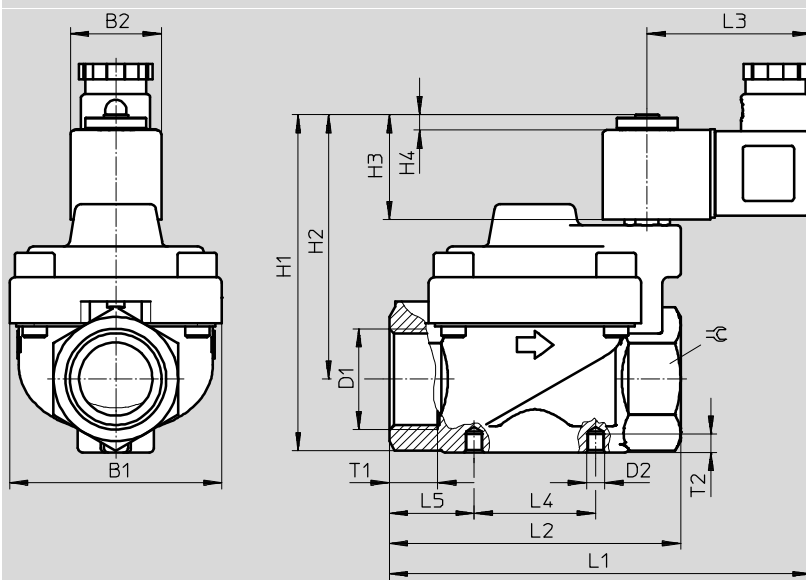
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	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5	T1	T2	≙
VZWP-L-M22C-G14-130-...	48	30	G $\frac{1}{4}$	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27
VZWP-L-M22C-G38-130-...	48	30	G $\frac{3}{8}$	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27
VZWP-L-M22C-G12-130-...	48	30	G $\frac{1}{2}$	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27

## Dimensions

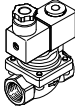
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	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5	T1	T2	≙
VZWP-L-M22C-G34-250-...	70	30	G $\frac{3}{4}$	M6	112	88	30	5	139	96	54	40	28	16	6	41
VZWP-L-M22C-G1-250-...	70	30	G1	M6	112	88	30	5	139	96	54	40	28	16	6	41

# Solenoid valves VZWP, servo-controlled

Technical data

Ordering data		Part No.	Type
	G <sup>1</sup> / <sub>4</sub>	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 <sup>3</sup> / <sub>8</sub>	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 <sup>1</sup> / <sub>2</sub>	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 <sup>3</sup> / <sub>4</sub>	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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### A Complete Suite and Company Overview

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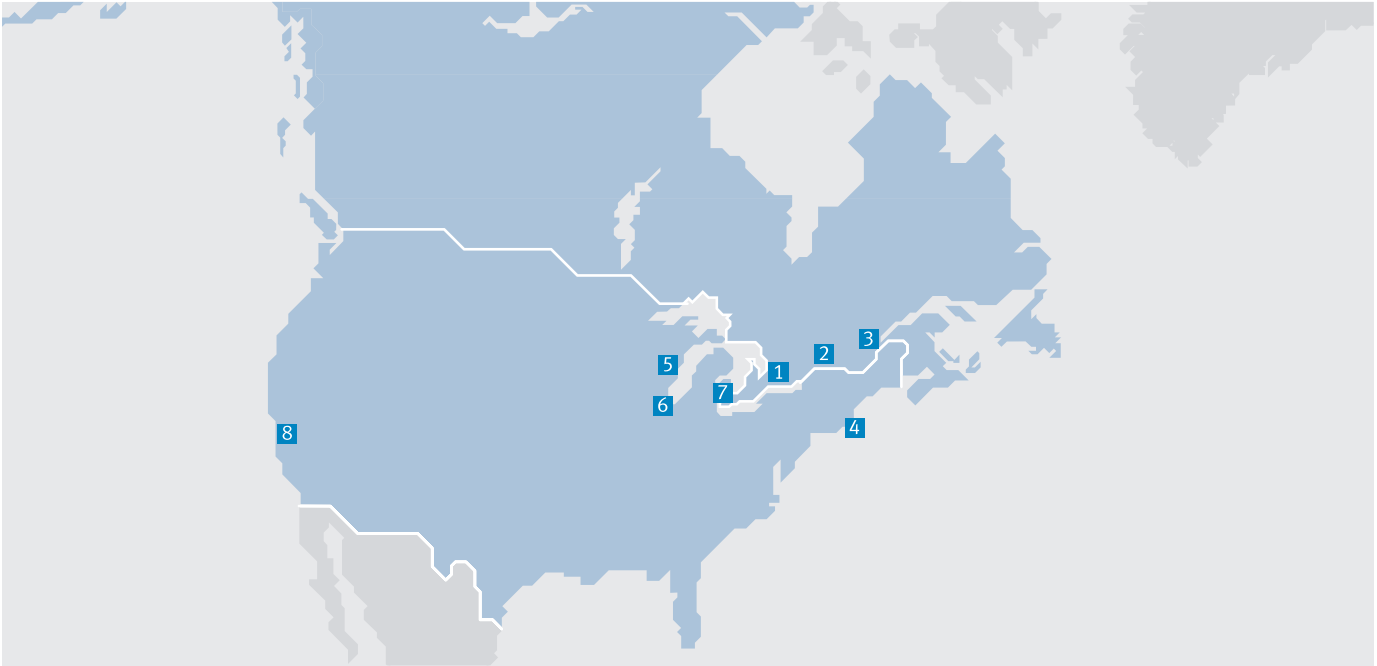
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# Festo North America



**1 Festo Canada  
Headquarters  
Festo Inc.**  
5300 Explorer Drive  
Mississauga, ON  
L4W 5G4

**2 Montréal**  
5600, Trans-Canada  
Pointe-Claire, QC  
H9R 1B6

**3 Québec City**  
2930, rue Watt#117  
Québec, QC  
G1X 4G3



**4 Festo United States  
Headquarters  
Festo Corporation**  
395 Moreland Road  
Hauppauge, NY  
11788

**5 Appleton**  
North 922 Tower View Drive, Suite N  
Greenville, WI  
54942

**7 Detroit**  
1441 West Long Lake Road  
Troy, MI  
48098

**6 Chicago**  
85 W Algonquin - Suite 340  
Arlington Heights, IL  
60005

**8 Silicon Valley**  
4935 Southfront Road, Suite F  
Livermore, CA  
94550

## Festo Regional Contact Center

### Canadian Customers

Commercial Support:  
Tel: 1 877 GO FESTO (1 877 463 3786)  
Fax: 1 877 FX FESTO (1 877 393 3786)  
Email: festo.canada@ca.festo.com

### Technical Support:

Tel: 1 866 GO FESTO (1 866 463 3786)  
Fax: 1 877 FX FESTO (1 877 393 3786)  
Email: technical.support@ca.festo.com

### USA Customers

Commercial Support:  
Tel: 1 800 99 FESTO (1 800 993 3786)  
Fax: 1 800 96 FESTO (1 800 963 3786)  
Email: customer.service@us.festo.com

### Technical Support:

Tel: 1 866 GO FESTO (1 866 463 3786)  
Fax: 1 800 96 FESTO (1 800 963 3786)  
Email: product.support@us.festo.com