

Solenoid valves VZWP, servo-controlled



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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 m³/h

Application

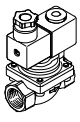
- All applications with a differential pressure of 0.5 bar
- Applications with an open medium circuit

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		

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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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Medium pressure

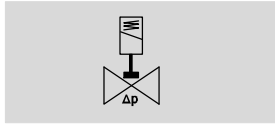
40	Max. 40 bar
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Technical data

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	1500	1400

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]	1600	2100	2650	8750	12250
Flow rate [m ³ /h]	1.5	2	2.5	8.2	11.5
Medium pressure [bar]	0.5 ... 40				
Process valve nominal pressure (PN)	40				
Differential pressure [bar]	0.5				
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 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
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	-

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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

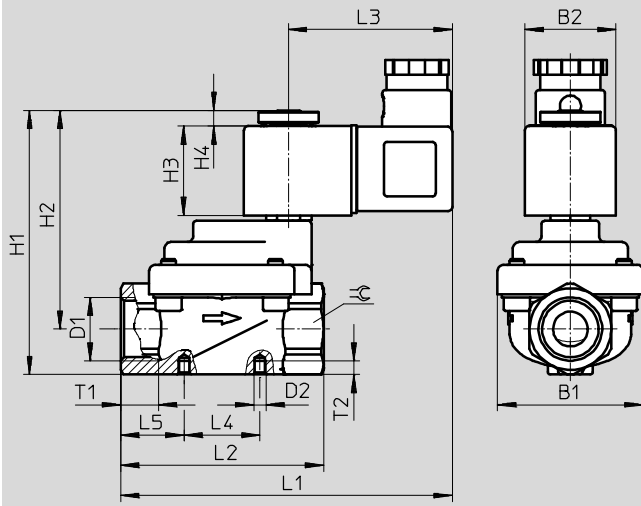
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Technical data

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Dimensions

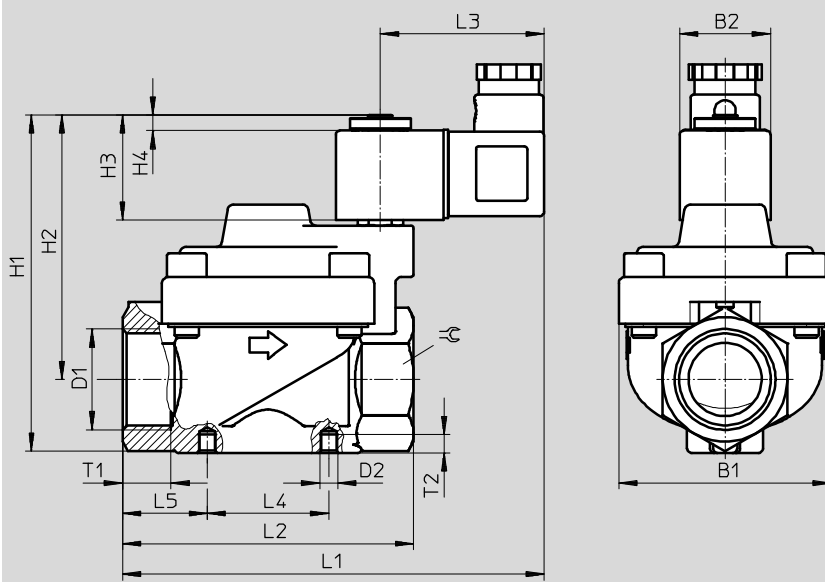
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	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5	T1	T2	⌀
VZWP-L-M22C-G14-130-...	48	30	G $\frac{1}{4}$	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27
VZWP-L-M22C-G38-130-...	48	30	G $\frac{3}{8}$	M4	88	73	30	5	110	67	54	25	21	12.5	4.5	27
VZWP-L-M22C-G12-130-...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

Dimensions

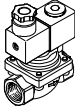
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	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	L3	L4	L5	T1	T2	⌀
VZWP-L-M22C-G34-250-...	70	30	G $\frac{3}{4}$	M6	112	88	30	5	139	96	54	40	28	16	6	41
VZWP-L-M22C-G1-250-...	70	30	G1	M6	112	88	30	5	139	96	54	40	28	16	6	41

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Ordering data		Part No.	Type
	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