

## Proportional media valves VZQA

**FESTO**



## Proportional media valves VZQA

Key features and overview

**FESTO**

### Function

The proportional media valve is a 2/2-way valve for controlling material flows. It is open in normal position. The shut-off element is a tubular pinch element made from


elastomer. When the valve is pressurised, the tubular pinch element closes and the material flow is tightly shut off. The valve opens when pressurisation stops

due to the internal stress of the pinch element or the pressure of the medium. The valve can be used to shut off liquid and dusty media, solids (granulates) as well as

mixtures of substances. The free passage when the valve is opened ensures minimum flow resistance and prevents the valve becoming blocked or clogged.

### General

-N- G $\frac{1}{2}$

-  - Standard nominal flow rate  
12,800 l/min

### Application

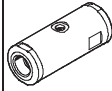
- The valve can be used to shut off media as well as mixtures of substances

### Design

- Easy-to-clean, cylindrical housing
- Normally open
- Pinch element made from elastomer

### Note

Pilot air connection 12: G $\frac{1}{8}$  . Max. permissible thread length: 5 mm.

Version	Type	Process valve connection	Nominal size (DN)	Process valve nominal pressure (PN)	→ Page/Internet
	VZQA	G $\frac{1}{2}$	15	10	4

### Note

The proportional media valve must only be used in systems where a damaged or leaking cartridge cannot pose a hazard to people or property. The media circuit must be

sized for the set pilot pressure. The designer and operator of the system are responsible for the suitability of the product in combination with the respective system as well as for the

resistance of the cartridge material to the operating medium used. Appropriate tests are generally required to assess the suitability. The risk of a leaking cartridge

together with the associated consequences must be taken into consideration when planning the system.

# Proportional media valves VZQA

Type codes

		VZQA	-	C	-	M22U	-	15	-	G	G	-	V4	V4	N	-	4
<b>Type</b>																	
VZQA	Proportional media valve, pneumatically actuated																
<b>Product version</b>																	
C	Easy-to-clean design																
<b>Valve function</b>																	
M22U	2/2-way valve, normally open																
<b>Nominal size (DN)</b>																	
15	DN 15																
<b>Connection type 1</b>																	
G	G thread, female																
<b>Connection type 2</b>																	
G	G thread, female																
<b>Housing material</b>																	
V4	Stainless steel																
<b>Housing cover material</b>																	
V4	Stainless steel																
<b>Shut-off element material</b>																	
N	NBR																
<b>Pressure range of media</b>																	
4	0 ... 4 bar																


## Proportional media valves VZQA

Technical data

**FESTO**

Function



 Standard nominal flow rate  
12,800 l/min

-N- Connecting thread  
G $\frac{1}{2}$



General technical data		
Process valve connection	G $\frac{1}{2}$	
Pilot air connection 12	G $\frac{1}{8}$	
Nominal size (DN)	15	
Valve function	2/2-way, single solenoid, open	
Design	Pinch valve, pneumatically actuated	
Type of mounting	In-line installation	
Actuation type	Pneumatic	
Type of control	External	
Reset method	Rebound resilience	
Mounting position	Any	
Sealing principle	Soft	
Direction of flow	Reversible	
Max. viscosity	[mm <sup>2</sup> /s]	4,000
Product weight	[g]	440

Operating and environmental conditions		
Process valve connection	G $\frac{1}{2}$	
Switching time on	[ms]	250
Switching time off	[ms]	250
Standard nominal flow rate	[l/min]	12,800
Operating pressure	[bar]	0 ... 4
Process valve nominal pressure (PN)	10	
Overload pressure	[bar]	7.8
Pilot pressure	[bar]	1 ... 6.5
Differential pressure	[bar]	2.5
Operating medium	Compressed air to ISO 8573-1:2010 [-:-:-]	
Pilot medium	Compressed air to ISO 8573-1:2010 [7:4:4]	
Ambient temperature	[°C]	-5 ... 60
Temperature of medium	[°C]	-5 ... 60
b value	0.85	
C value	[l/sbar]	33.44
Corrosion resistance class CRC <sup>1)</sup>	4	

1) Corrosion resistance class 4 according to Festo standard 940 070

Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Materials			
Solenoid valves			Material number
1	Housing, housing cover	High-alloy stainless steel	1.4435
2	Seals	FPM	–
3	Shut-off element	NBR	–
–	Note on materials	RoHS-compliant	–

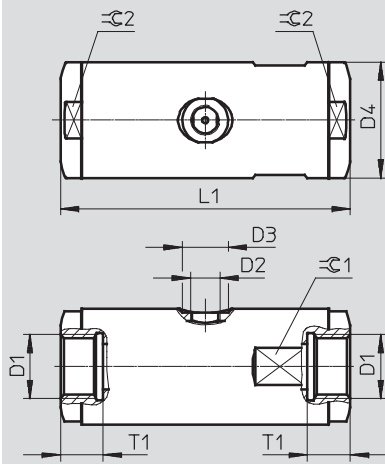
# Proportional media valves VZQA

Technical data

**FESTO**

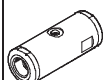
## Dimensions

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



	D1	D2	D3 Ø	D4 Ø	L1	T1	∅ 1	∅ 2
VZQA-C-M22U-15-GG-V4V4N-4	G1/2	G1/8	15	38	95	14	36	36

## Ordering data

	Process valve connection	Part No.	Type
	G1/2	1387297	VZQA-C-M22U-15-GG-V4V4N-4

## Note

The hermetic separation between the media circuit and pilot circuit is no longer guaranteed if wear causes the pinch element to leak. The flow medium can then get into the pilot circuit, from where it can escape.

Any potential hazard (e.g. due to aggressive or hot media) must be ruled out. The compressed air supply to the control valve must be protected against the ingress of the flow medium using a suitable

non-return valve or a suitable protection against return flow must be integrated in the pilot line in the immediate vicinity of the media valve. Pilot medium can get into the

media circuit if the pinch element fails. The media circuit must therefore be sized for the set pilot pressure. Any potential hazard must be ruled out.

## Product Range and Company Overview

### A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



**Custom Automation Components**  
Complete custom engineered solutions



**Custom Control Cabinets**  
Comprehensive engineering support and on-site services



**Complete Systems**  
Shipment, stocking and storage services

### The Broadest Range of Automation Components

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



**Electromechanical**  
Electromechanical actuators, motors, controllers & drives



**Pneumatics**  
Pneumatic linear and rotary actuators, valves, and air supply



**PLCs and I/O Devices**  
PLC's, operator interfaces, sensors and I/O devices

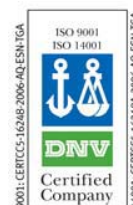
### Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

### Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



© Copyright 2008, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmentally friendly printing plant.

# 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)

**Fax:** 1.800.96.FESTO (1.800.963.3786)

**Email:** [customer.service@us.festo.com](mailto:customer.service@us.festo.com)

For technical support,

**Call:** 1.866.GO.FESTO (1.866.463.3786)

**Fax:** 1.800.96.FESTO (1.800.963.3786)

**Email:** [product.support@us.festo.com](mailto:product.support@us.festo.com)

### 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](mailto:festo.canada@ca.festo.com)

## USA Headquarters

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

### Dallas

1825 Lakeway Drive, Suite 600  
Lewisville, TX 75057, USA

### 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](mailto:info@festo-usa.com)

[www.festo.com/us](http://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](mailto:festo.canada@ca.festo.com)

[www.festo.ca](http://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](mailto:festo.mexico@mx.festo.com)

[www.festo.com/mx](http://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



## Festo Worldwide

Argentina Australia Austria Belarus Belgium Brazil Bulgaria Canada Chile China Colombia Croatia Czech Republic Denmark  
Estonia Finland France Germany Great Britain Greece Hong Kong Hungary India Indonesia Iran Ireland Israel Italy Japan Latvia  
Lithuania Malaysia Mexico Netherlands New Zealand Norway Peru Philippines Poland Romania Russia Serbia Singapore  
Slovakia Slovenia South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine United States Venezuela

[www.festo.com](http://www.festo.com)