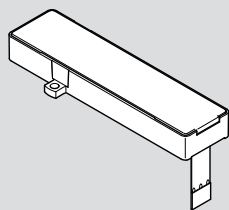


VEAE-BB-6-...-X4

Piezo valve



FESTO

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8202830

Operating instruction

8202830
2023-10c
[8202832]

Translation of the original instructions

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1 Applicable documents

All available documents for the product → www.festo.com/sp.

2 Safety

2.1 Safety instructions

- Only use the product in its original condition without unauthorised modifications.
- Only use the product if it is in perfect technical condition.
- Before working on the product, switch off the compressed air supply and lock it to prevent it from being switched on again.
- Before working on the product: Switch off the power supply, ensure that it is off and secure it against being switched on again.
- Comply with the handling specifications for electrostatically sensitive devices.
- Store the product in a cool, dry environment protected from UV and corrosion. Keep storage times short.

2.2 Intended use

The piezo valve controls gas flows proportional to the applied voltage.

2.3 Training of qualified personnel

Work on the product may only be carried out by qualified personnel who can evaluate the work and detect dangers. The qualified personnel have skills and experience in dealing with electropneumatic (open-loop) control technology.

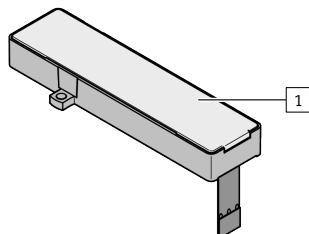
3 Additional information

- Contact the regional Festo contact if you have technical problems → www.festo.com.
- Accessories → www.festo.com/catalogue.

4 Product overview

4.1 Product Range Overview

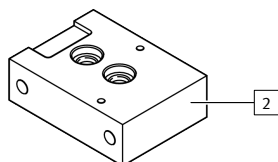
4.1.1 Scope of delivery



1 Piezo valve (1x)
VEAE-BB-6-...-X4

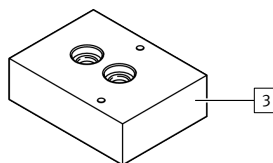
Fig.1

4.1.2 Not in scope of delivery



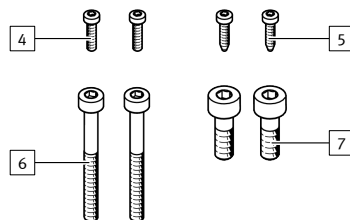
2 Sub-base (1x)
VABS-P16-10S-M5

Fig.2



3 Sub-base (1x)
customer, interface
→ www.festo.com/catalogue

Fig.3



4 Screw (2x)
M2x8
5 Screw (2x)
M2, thread moulder
6 Screw (2x)
M3
7 Screw (2x)
M4

Fig.4



8 Assortment of seals (1x)
VABD-P16-S
includes:
- O-ring (200x)

Fig.5

4.2 Function

The piezo valve is a proportional 2/2-way valve in which a piezo actuator is electrically controlled. The flow rate can be controlled by a closed loop control by integrating a flow sensor into the output line. In the normal position the piezo valve is closed.

5 Assembly

5.1 Positioning the piezo valve

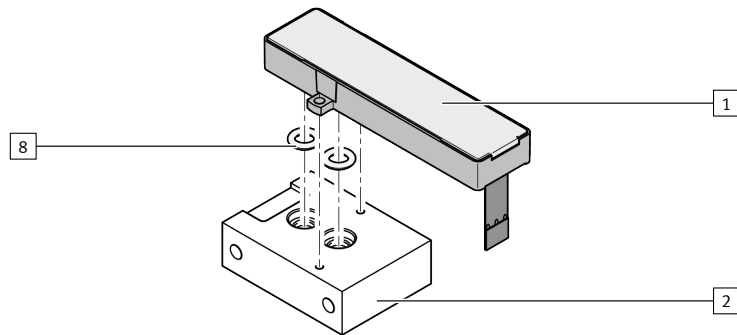


Fig. 6: Positioning the piezo valve

1. Insert the O-rings [8] into the recesses.
2. Position the piezo valve [1] on the connecting plate [2].

5.2 Mounting the piezo valve

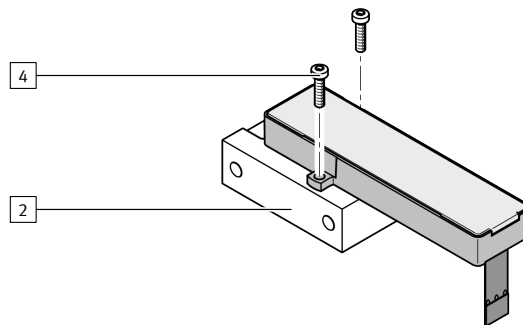


Fig. 7: Mounting the piezo valve

When mounting on the connecting plate [2]:

- Tighten the screws [4]. Maximum tightening torque: 0.1 Nm

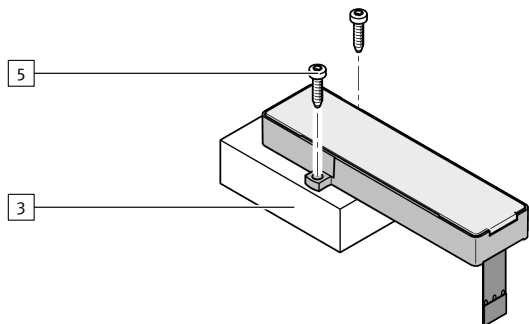


Fig. 8: Mounting the piezo valve

When mounting on the connecting plate [3]:

1. Select the right screw length for the installation situation.
2. Tighten the screws [5]. Determine the tightening torque according to the installation situation.

i

In case of increased noise generation, a silencer can be mounted at the outputs.

5.3 Mounting connecting plate

5.3.1 Mounting via mounting surface

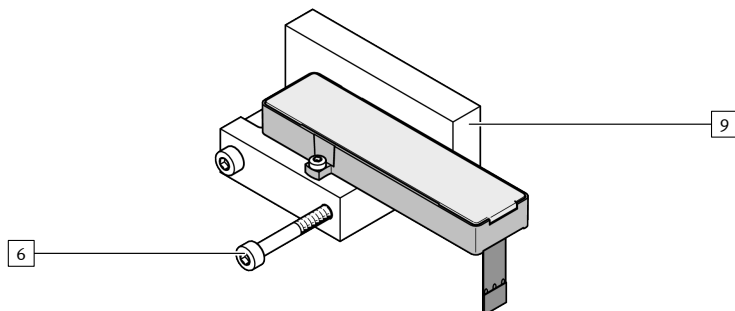


Fig. 9: Mounting via mounting surface

1. Select the right screw length for the installation situation.
2. Tighten the screws [6] in the threads of the mounting surface [9]. Determine the tightening torque according to the installation situation.

5.3.2 Mounting via connecting plate

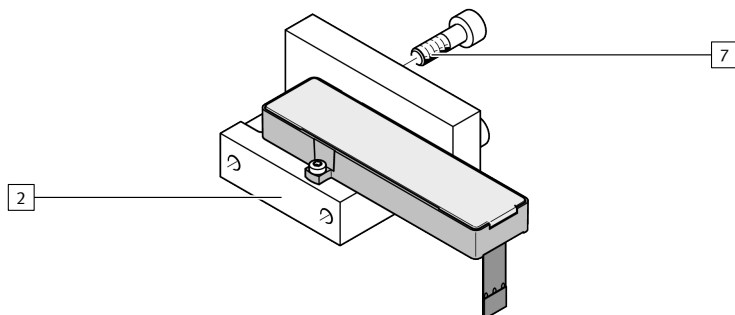


Fig. 10: Mounting via connecting plate

1. Select the right screw length for the installation situation.
2. Tighten the screws [7] in the connecting plate [2]. Determine the tightening torque according to the installation situation.

6 Installation

VEAE-BB-6-...-X4

Pin	Function
1	Power supply 0 ... 300 V
2	GND
3	GND

Tab. 1: Pin allocation

i

The piezo valve can optionally be installed on the electronics module VAVE-P...-TP.

7 Commissioning

- For applications where purity is critical, it is recommended that the product be run in for 24 hours with a control cycle typical for the application.

8 Technical data

8.1 Technical data, general

VEAE-BB-6-...-X4	
Function	2/2-way valve, normally closed
Mounting position	Any
Degree of protection	IP40
Ambient temperature [°C]	-10 ... +60
Storage temperature [°C]	-20 ... +70
Fluid temperature [°C]	-10 ... +60

Tab. 2: Technical data, general

8.2 Technical data, pneumatic

VEAE-BB-6-...-X4	-D9	-D22
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [5:3:1]	
	Inert gases	
	Oxygen (applications in accordance with IEC 60601-1 only on request)	
Information on the operating medium	Lubricated operation not possible	
Consistency of media [µm]	Grade of filtration ≤ 5	
Operating pressure	[MPa]	0 ... 0.6
	[bar]	0 ... 6.0
	[psi]	0 ... 87.0
		0 ... 0.3
		0 ... 3.0
		0 ... 43.5

Tab. 3: Technical data, pneumatic

8.3 Technical data, electrical

VEAE-BB-6-...-X4	
Operating voltage range DC [V]	0 ... 300
Voltage fluctuations [%]	± 10

Tab. 4: Technical data, electrical