

Pressure and vacuum generators PGVA

FESTO



Highly versatile!

Highlights

- Integrated compressor
- Proportional pressure/ vacuum regulation or pre-set fixed values
- 24 V power supply
- Flexible in use
- Easy to integrate
- Easy to operate and configure
- Dynamic and precise

The decentralised pressure and vacuum generator PGVA only requires a 24 V power supply to provide your pressure- or vacuum-controlled solution with compressed air. It is perfect for your laboratory processes, for example when handling liquids for pipetting medical samples or dispensing using a dispense head.

Complete solution

The PGVA provides you with a complete solution that makes your life easy: the pressure and vacuum generator PGVA integrates the compressor, the air preparation including filtering, the buffer reservoirs and the electronic pressure/vacuum controller. The pressure and vacuum supply is either individually controlled or via predefined values.

Easy integration into your application

Festo plug and work: the PGVA couldn't be easier to integrate into your liquid handling solution thanks to the defined electric, pneumatic and software interfaces.

Pressure and vacuum generators PGVA

Pressure and vacuum generator PGVA-1

Regulated pressure/vacuum generation

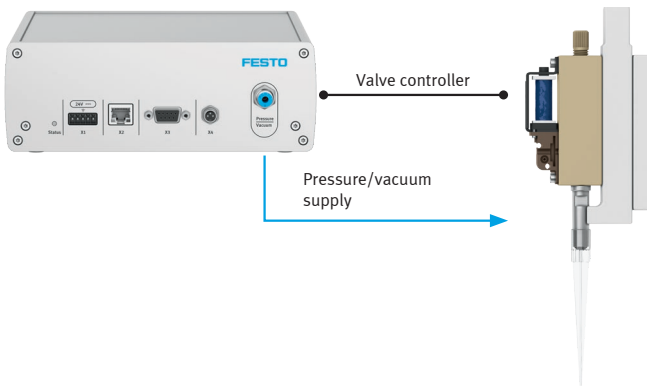
The pressure and vacuum are generated in a closed control loop with integrated compressor, buffer reservoir, pressure sensors and proportional valve. Pressure and vacuum are supplied via the same channel at the output. The digital communication interface enables you to enter the required pressure level via the integrated GUI or a controller.

Pressure-controlled handling of liquids

You set the required volume for dispensing or aspiration at the digital output via the opening time of the valve, as well as via the pressure/vacuum level at the output of the pressure and vacuum generator PGVA-1.

Pressure and vacuum generator PGVA-1

Pipetting unit DHOE-CS
pipette tip ejector
DHAO-EJ-CS and
single-use pipette tip DHAP



Pressure and vacuum generator PGVA-2

Constant pressure/vacuum generation

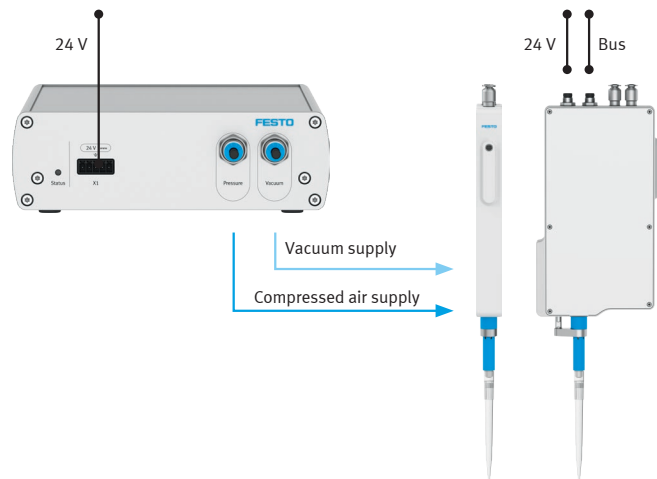
The supply of pressure and vacuum is ensured via two individually controlled channels at the output. The pressure and vacuum levels are generated on the basis of preset fixed values. This eliminates the need for a communication interface for adjusting the regulation within the pressure/vacuum generator. A 24 V power supply is sufficient to ensure generation.

Control with smart pipette head

The integrated control loop within the smart pipette ensures that the pressure-vacuum is precisely regulated and that the pressure control is set for the required target volume.

Pressure and vacuum generator PGVA-2

Pipette head DHOP and
single-use pipette tip DHAP



Technical data

	PGVA-1	PGVA-2
Dimensions (width x height x depth)	210 x 76 x 208 mm	170 x 55 x 210 mm
Product weight	3.2 kg	1.8 kg
Pressure/vacuum range	-450 mbar ... +450 mbar	-620 mbar, +800 mbar
Standard nominal flow rate	1 l/min	1.2 l/min
Sound power level	55 dB (A)	55 dB (A)
Controller	Proportional piezo valve with quick exhaust valve	Without controller (fixed values)
Supply voltage	24 V	24 V
Electrical power consumption	19 W	11 W
Interfaces	Sub-D with RS232 serial port RJ45 Ethernet port for Modbus TCP Terminal strip for power supply and digital output M8 plug for analogue input	Terminal strip for power supply
Commissioning	WebGUI or controller	Not required
Absolute accuracy	1% (FS)	1% (FS)
Air filtration	0.01 µm	0.01 µm
Pneumatic port	QS-4	QS-4